us-no-272/21-7.rup

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OM protein - protein search, using sw model

Run on: October 13, 2004, 14:34:12 ; Search time 193 Seconds (without alignments)
193.779 Million cell updates/sec

Title: Perfect score: Sequence: US-10-272-121-2
357
1 MRIHYLLFALLFLFUPVPG......LPKEEQIGKCSTRGRKCCRR 65

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 1825181 segs, 575374646 residues

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Total number of hits satisfying chosen parameters:

1825181

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt_02:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

33000000000000000000000000000000000000	140m4	Result
298 298 256 256 133 134 133 116.3 11	357 353 349 302	Score
•		Query Match L
00000000000000000000000000000000000000	7#277	Length DB
10 10 10 10 10 10 10 10 10 10 10 10 10 1		ID
		1 1 1 1 1 1 1 1 1 1 1 1 1 1
Q68668 sus scrota Aar88759 sus scrot Q7tnv9 mus musculu Q865p6 equus cabal Q9tt12 pan troglod Q9bds9 macaca mula Q15263 homo sapien Aah69285 homo sapien Aah69285 homo sapien Q102775 bos taurus Q71485 bos taurus Q71485 bos taurus Q71485 bos taurus Q71483 orotalus du p46163 bos taurus p24331 crotalus du p46163 bos taurus Q9bwf3 crotalus du p46163 bos taurus Q9bwf3 crotalus du Q6tm45 bubalus bub Aaq93463 bubalus bub Aaq93463 bubalus bub Q7942 capra hircu Q9dg58 galius galius Q7942 crotalus du Q7943 bubalus bub Q7942 capra hircu Q9dg58 galius galius Q73799 crotalus du	o sapi	Description
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BD01_RAT	BD06_BOVIN	Q9DG57	BD04_MOUSE	BD04_BOVIN	Q91V82	Q8R556	Q6GXJ2	Q91VD6	Q9EPV9	BDC7_BOVIN	BD02_SHEEP	BD01_CAPH1	BD02_RAT
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ALIGNMENTS

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Submitted (AUG-2000) to the EMBL/Genbank/DDBJ calcadabes:	8.";	omic datab	, O'Hara P.;	עב כט		įtt		SEQUENCE FROM N.A.	le 263:211-218(2001).	<pre>"Discovery of new human defensins using a genomics-based approach.";</pre>	Witros J.	B.C., Schudy A., Linzmeier R., Guthmill	MEDLINE=21125233; PubMed=11223260; DOI=10.1016/S0378-1119(00)00569-2;	Cell Tissue Res. 306:257-264(2001).	í	the induction of macrophage	onal beta-defen	Vogelmeier C., Becker D., Hedrich R., Forssmann WG., Bals R.;	Rodriquez-Jimenez J., Forssmann U., Adermann K., Kluever E.,	4	UENCE FROM N.A.		J. Biol. Chem. 276:5707-5713(2001).		Harder J., Bartels J., Christophers E., Schloeder J. W.; a novel	U	s, Lung epithelial cells, and Tracheal	SEQUENCE FROM N.A., SEQUENCE OF 23-67, FUNCTION, TISSUE SEECIFICITY,			; ; ; ; ; ; ;		Name-Deseloar Synonyms=Defelo. Defe. BD3:	in 103A pro	notation update)	(Rel. 40, Created)	D103 HUMAN STANDARD; PKT; 6/ AA.	1 UMAN

update)

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J. Biol. Chem. 277:8279-8289 (2002).

C. FUNCTION: Exhibits antimicrobial activity against Gram-positive bacteria S.aureus and S.pyogenes, Gram-negative bacteria

C. P.aeruginosa and E.coli and the yeast C.albicans. Kills

multiresistant S.aureus and vancomycin-resistent E.faecium. No

C. significant hemolytic activity was observed.

C. ITISSUE SPECIFICITY: Highly expressed in skin and tonsils, and to a classer extent in trachea, uterus, kidney, thymus, adenoid, pharynx and tongue. Low expression in salivary gland, bone marrow, colon, stomach, polyp and larynx. No expression in small intestine.

C. INDECTION: By infection of bacteria and by interferon gamma.

C. HASS SPECTRONETRY: MW=5154.59; METHOD=Electrospray, RANGE=23-67;
                                                                                                                  Matches
                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIJNE=21864161; PubMed=11741980; DOI=10.1074/jbc.M108830200; SChibli D.J., Hunter H.N., Aseyev V., Starner T.D., Wiencek J.M., McCray P.B. Jr., Tack B.F., Vogel H.J.; The solution structures of the human beta-defensins lead to a better understanding of the potent bactericidal activity of HBD3 against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Cloning and expression of Chinese human beta Submitted (MAY-2002) to the EMBL/GenBank/DDBJ [7]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [6]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GO; GO:0005576; C:extracellular; NAS.
GO; GO:0006565; P:anti-Gram-positive bacterial polypeptide in.
InterPro, IPR001855, Defensin beta.
Pfam; PF00711; Defensin_beta; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genew;
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MEDLINE=21864161; PubMed=11741980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chen S., He F., Li R.;
                                                                                                                                                                                                                     SEQUENCE
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HELIX
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PDB; 1KJ6; NMR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                        STRAND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY: Belongs to the beta-defensin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L; AJ237673; CAC03097.1; -.
L; AF295370; AAG02237.1; -.
L; AF217245; AAF73853.1; -.
L; AB037972; BAB40572.1; -.
L; AF301470; AAG22030.1; -.
L; AF516673; AAM62424.1; -.
L; AF516673; AAM6242.1; -.
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                                                                                                                  65,
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                                                                                                                                         Similarity
                                MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEBQIGKCSTRGR
        MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
                                                                                                               100.0%;
llarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antibiotic;
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445355
445355
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beta-defensin 103A
                                                                                                               Score 357; DB 1;
Pred. No. 6.5e-34;
; Mismatches 0;
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databases.
                                                                                                                                                                 Length 67;
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                                                                                                               0,
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     PARRENCOCCOS DE TOTO DO TOTO DE TOTO D
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF0
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                        PANTR
D103_F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Semple C.A.M., Rolfe M., Dorin J.R.;
Submitted (AUG-2002) to the EMBL/GenBank/DDBJ database
-!- MISCELLANEOUS: The sequence shown here is derived
EMBL/GenBank/DDBJ third party annotation (TPA) ent
EMBL; BK000557; DAA01350.1; -.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005952; P:defense response; IEA.
GO; GO:0009513; P:response to pest/pathogen/parasite;
InterPro; IPR001855; Defensin_beta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q7PCK4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFB103-like protein (Fragment).
Papio amubis (Olive baboon).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2004 (TrEMBLrel 26, Created)
01-MAR-2004 (TrEMBLrel 26, Last sequence up
01-MAR-2004 (TrEMBLrel 26, Last annotation
                                                                                                                                                                                                                                                                                                                               29-MAR-2004 (Rel. 43,
29-MAR-2004 (Rel. 43,
05-JUL-2004 (Rel. 44,
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MEDLINE=22619651; PubMed=12734011;
Semple C.A., Rolfe M., Dorin J.R.;
Duits L.A., Langermans J.A.M., F
Vervenne R.A.W., Hiemstra P.S.,
                                                                                                                                                                                                                     Name=DEFB103A; Synonyms=DEFB103, DEFB3; Pan troglodytes (Chimpanzee).
                                                                                                                                                                                                                                                                                                       Beta-defensin 103A
                                                                                                                                                                                                                                                                                                                                                                                                                 Q95JD2;
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                                                          TISSUE-Skin;
                                                                                       SEQUENCE FROM N.A.
                                                                                                                                   NCBI_TaxID=9598;
                                                                                                                                                                         Mammaıla;
                                                                                                                                                                                              Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MRIHYLLFALLFLUPVÞGHGGIINTLQKYYCRVRGGRCAVLSCLÞKEEQIGKCSTRGR
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                                                                                                                                                                   ; Metazoa; Chordata; Craniata; Vertebrata; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67
     Langermans J.A.M., Ravensbergen B., Paltan
A.W., Hiemstra P.S., Thomas A.W., Nibbering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
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Last sequence update)
Last annotation update)
....~ (Reta-defensin 3)
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Pred. No. 1.9e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                   Hominidae;
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(TPA) entry databases. derived from an

CRC64; Length

Indels

0;

Gaps

0

60

(DEFB-3) (BD-3)

Euteleostomi; Pan.

Paltansing S., bbering P.H.;

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RESULT
BD01_CH
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Best Local S
Matches 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antibiotic; Signal.
SIGNAL 1
CHAIN 23 >
DISULFID 33
DISULFID 40
DISULFID 45
DISULFID 45
NON_TER 64
                                                                                                                                                                                   PubMed=14996845; DOI=10.1074/jbc.M400499200;
Harris R.H., Wilk D., Bevins C.L., Munson R.S. Jr., Bakalet
"Identification and characterization of mucosal antimicrobi
expressed by the chinchilla (Chinchilla lanigera) airway.";
J. Biol. Chem. 279:20250-20256(2004)
                                                                                                                                                                                                                                                                                                                                                                                             Name=DBFB1; Synonyms=BD1;
Chinchilla Lanigera (Chinchilla).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Hystricognathi; Chinchillidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-UUL-2004 (Rel. 44, Created)
05-UUL-2004 (Rel. 44, Last sequence update)
05-UUL-2004 (Rel. 44, Last annotation update)
Beta-defensin 1 precursor (cBD-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHILA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Expression of chimpanzee (Pan troglodytes) beta-defensin-3.";
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Exhibits antimicrobial activity against Gram-positive
                                                                                                                                                                                                                                                             TISSUE=Tongue, and Trachea;
PubMed=14996845; DOI=10.107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AY033883; AAK61549.1;
                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=34839;
                                                                                                                                                                                                                                                                                                         SPECTROMETRY
                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and Gram-negative bacteria (By similarity).
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the beta-defensin family.
            SUBCELLULAR LOCATION: Secreted. TISSUE SPECIFICITY: Highly exprimucosa and skin, and to a lower
                                                                                      FUNCTION: Has antibacterial activity against Gram-positive bacterium S.pneumoniae Serotype 14. Is also active against Gram-negative bacteria M.catarrhalis 1857, and nontypeable H.influenzae strains 86-028NP and 1128. Has antifungal activity against C.albicans. May have a role in maintaining sterility in the middle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHILA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7299 MW;
                                                                                                                                                                                                                                                                                                                       FUNCTION,
                TY: Highly expressed in tongue, nasopharyngeal and to a lower extent in the Eustachian tube,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97.8%;
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1; Mismatches
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Pred. No. 5.3e-33;
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By similarity.
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Beta-defensin 103A
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antimicrobial peptides
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RESULT 6
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AC AAR8
DT 02-M

AAR88759; AAR88759; 02-MAR-2004

(TrEMBLrel. 27, PRELIMINARY;

Created)

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RESULT 5

Q6SC68

ID Q6SC

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ambi; AY128668; AAM97293.
Interpro; IPR006090; Defens.
SMART; SM00048; DEFSN; 1.
Antibiotic; Fungicide; Signal.
SIGNAL
1 22 Pc
1 33 67
3 FID 33 67
3 FID 33 67
3 AAA; 76
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Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q6SC68;
05-JUL-2004
05-JUL-2004
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                          Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                       Sang Y., Zhang G., Ross C.R., Blecha F.; Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Prepro-beta-defensin 3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTE=Ref
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KCCRK 65
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                                                                                                                                                                                 Conservative
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A; 7790 MW;
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79.7%;
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Last sequence update)
Last annotation updat
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By similarity.
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30A611CDCCD5BA8D CRC64;
                                                                                                                                                                                                                                                                               - 6BC28264846572AC CRC64;
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                                                                                                                                                                            Pred. No. 4.96
7; Mismatches
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9; Mismatches
                                                                                                                                                                                                     Score 298;
Pred. No. '
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Pred. No. 1
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Q7TNV9
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Matches 44
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01-OCT-2003
01-OCT-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Characterization of porcine beta-defensin 3 and synergistic effect of porcine beta-defensin 1, 2 and 3."; Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases.
EMBL, AY460575; AAR88759.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Prepro-beta-defensin
Sus scrofa (Pig)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-MAR-2004
02-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O1-OCT-2003 (TrEMBLrel.
O1-OCT-2003 (TrEMBLrel.
O1-MAR-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Characterization of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9823;
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Beta defensin 14.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=Defb14;
                                                                                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                                                                                                                              Dorin J.R.;
Submitted (JUL-2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maxwell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=C57Bl/6;
                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                  InterPro;
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                                                                                                                                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=C57B1/6;
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L; AJ578468; CAE17665.2; ...
GO:0005576; C:extracellular; IEA.
GO:0006552; p:defense response; IEA.
GO:0006552; p:defense response; Deta.
erpro; IPR001855; Defensin beta.
m; PF00711; Defensin beta.
TER001855; Defensin beta.
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52; Conserv
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                                                                                                                                                                                Similarity
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                                                                                                          WRIHYLIFALLELELVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
                                          KCCRR 65
                                                                              <u>MRLHYLLFVFLILFLVFAPGDAFLPKTLRKFFCRIRGGRCAVLNCLGKEEQIGRCSNSGR</u>
  KCCRK
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9; Mismatches
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Pred. No. 4.9e-27;
7; Mismatches 6
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Submitted (OCT-2002) to the EMBL/GenBank/DDBJ database
RMBL; AY170305; AA032801.1; -.
HSSP; P46170; IBNB.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005572; P:defense response; IEA.
GO; GO:0006932; P:response to post/pathogen/parasite;
InterPro; IPR006080; Defensin_mammal.
SWART; SM00048; DEFSN; 1.
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Mammalia; Eutheria;
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29-MAR-2004 (Rel. 43, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Beta-defensin 2 precursor (BD-2) (Defensin, b
                                                                                                               This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sor send an email to license@@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                     Name=DEFB4; Synonyms=DEFB2, DEFB102;
Pan troglodytes (Chimpanzee).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
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29-MAR-2004
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Mammalia; Eutheria;
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                           EMBL; AF209855; AAF20154.1; HSSP; O15263; 1E4Q.
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DBD02 MACMU STANDAKU;

OS-UTIL-2004 (Rel. 44, Created)

T 05-UTIL-2004 (Rel. 44, Last sequence update)

JT 05-UTIL-2004 (Rel. 44, Last annotation update)

DE Beta-defensin 2 precursor (BD-2) (RhBD-2) (Defensin, be'

B Name-DEFB4; Synonyms-DEFB2;

Name-DEFB4; Synonyms-DEFB2;

OS Macaca mulatta (Rhesus macaque).

OS Macaca mulatta (Rhesus macaque).
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Bals R., Lang C., Weiner D.J., Vogelmeier C., Welsch U., Wilson "Rhesus monkey (Macaca mulatta) mucosal antimicrobial peptides a close homologues of human molecules.";
Clin. Diagn. Lab. Immunol. 8:370-375(2001).
-!- FUNCTION: Has antibacterial activity (Potential).
-!- SUBCELLULAR LOCATION: Secreted (By similarity).
-!- SUBCELLULAR LOCATION: The beta-defensin family. LAP/TAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MACMO
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Antibiotic;
                                                                                                                                                                                                                                                                                                               HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a celebrate the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is meet by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and to modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cercopithecinae; Macaca.
NCBI_TaxID=9544;
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                                                                                                                                                                                                                                                                          InterPro;
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Pro; 1PR001855;
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                                                                                                                                                                                                                                SM00048; DEFSN;
                                                                                                                                                                                                                                                                                                                                                                             an email to license@isb-sib.ch).
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0711; Defensin_beta; 1.
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BB26454CE7ACCDDF (
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Pred. No. 4.9e-08;
2; Mismatches 22;
  Score 134; DB 1; 1
Pred. No. 6.5e-08;
2; Mismatches 22;
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15-UUL-1998 (Rel. 36, Created)
15-UUL-1998 (Rel. 36, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Beta-defensin 2 precursor (BD-2) (hBD-2) (Defanticobial peptide 1) (SAP1).
Name=DEPH; Synonyms=DEPH2, DEPH102;
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SEQUENCE FROM N.A.;
Harder J., Schroeder J.-M.;
"Transcriptional regulation
"Thanscriptional regulation
"hmitted (AUG-1997) to the
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SEQUENCE FROM N.A.
MEDLINE=20072673; PubMed=10603376;
MEDLINE=20072673; PubMed=10603376;
Russell J.P
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Bauer F., Schweimer K., Kluever E., Conejo-Garcia J.-R., Forssmann W.-G., Rosch P., Adermann K., Sticht H.; Structure determination of human and murine beta-defensins structural conservation in the absence of significant sequer
                                                                                                                                                     oligomerization.";
J. Biol. Chem. 275
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TISSUB=91acenta;
MEDLINE=99051334; PubMed=9831658;
MEDLINE=9051334; PubMed=9831658;
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Harder J., Bartels J.H., Christophers
"A peptide antibiotic from human skin.
Nature 387:861-861(1997).
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Mammalia; Eutheria;
                                                                 STRUCTURE BY NMR OF 28-64.
MEDLINE=21571984; PubMed=11714914;
Bauer F., Schweimer K., Kluever E.,
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MEDLINE=22007551; I
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(Chemical synthesis of beta-defensins
( Pept. Res. 59:241-248(2002).
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NE=20490730; PubMed=10906336; DOI=10
r D.M., Rajashankar K.R., Blumenthal
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EMBL; AF071216; AAC69554.1; -.
EMBL; AJ000152; CAB6126.1; -.
EMBL; AJ000152; CAB6126.1; -.
PDB; 1E4Q; NMR; A=28-64
PDB; 1FD3; X-ray; A/B/C/D=24-64.
PDB; 1FD4; X-ray; A/B/C/D/E/F/G/H/I/J/K/L/M/N/O/P=24-64.
PDB; 1FQ4; NMR; A=24-64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      similarity."; 1:2470-2479(2001).
Protein Sci. 10:2470-2479(2001).
-!- FUNCTION: Has antibacterial activity (Potential).
-!- SUBCELULAR LOCATION: Secreted.
-!- SUBCELULAR LOCATION: Sepressed in the skin and respiratory tract.
-!- INDUCTION: By inflammation.
-!- INDUCTION: By inflammation.
-!- SIMILARITY: Belongs to the beta-defensin family. LAP/TAP
                                                01-JUN-2004 (TrEMBLrel.
01-JUN-2004 (TrEMBLrel.
01-JUN-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long a modified and this statement is not removed. entities requires a license agreement (See lor send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>ც</u>
Eukaryota; Metazoa;
             Homo sapiens (Human)
                                  Defensin,
                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                 STRAND
                                                                                                                                                                                                                                                                                                                                                             TURN
                                                                                                                                                                                                                                                                                                                                                                       STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3D-structure; Antibiotic; Signal.
SIGNAL 1 23 Pote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genew;
                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO:0009613;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GO:0006935; P:chemotaxis;
GO:0007186; P:G-protein co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GO:0006955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGNC:2767;
602215; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Z71389; CAA95992.1; -.
                                                                                                                                                             58 TKCCKK
                                                                                                                                                                                     60 RKCCRR 65
                                                                                                                                                                                                                                1 MRIHYLLEALLELELVEVEG-HGGIINTLQKYYCRVRGGRCAVLSCLEKEEQIGKCSTRG
                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                            MRVLYLLESELFIFLMPLPGVFGGIGDPVT---CLKSGAICHPVFCPRRYKQIGTCGLPG 57
                                  beta 4,,.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            613; P:response to pest/pathogen/parasite; TAS PR001855; Defensin_beta.
                                                                                                                                                                                                                                                                                                           64 AA;
                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                         44EE4336EE445744EE44666
                                                                                                                                                             63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P:immune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P:G-protein coupled receptor protein signalin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFB4.
                                                                                                                                                                                                                                                                                                           62
7038 MW;
                                                                                                                                                                                                                                                        37.3%; Scc
42.4%; Pr
ative 12;
Chordata;
                                                27,
27,
27,
                                                Last sequence update)
Last annotation updat
                                                                       Created)
                                                                                                                                                                                                                                                          Score 133; DB 1; Le
Pred. No. 8.4e-08;
2; Mismatches 22;
                                                                                                                                                                                                                                                                                                           05D6454CE7ACD10E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beta-defensin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAS.
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Craniata; Vertebrata; Euteleostomi;
                                                                                                  64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
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                                                update)
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SORRELL REPORTED TO THE RESERVATION OF THE RESERVAT
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RX Strausberg R.L., Fringold E.A., Grouse L.H., Derge J.G.,

RX Strausberg R.L., Fringold E.A., Grouse L.H., Derge J.G.,

RX Strausberg R.L., Fringold E.A., Grouse L.H., Derge J.G.,

RX Strausberg R.L., Fringold E.A., Grouse L.H., Schnefer C.F., Bhat N.K.,

RX Hopkins R.F., Zeeberg B., Buetow K.H., Schnefer C.F., Bhat N.K.,

RX Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RX Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RX Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RX Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RX Stapleton M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Stapleton M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Stapleton M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Stapleton M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Stapleton M.A., McKernan K.J., Malek J.A., Gunaratne P.H.,

RX Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RX Hollon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RX Willaton D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RX Willaton D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RX Willaton D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RX Willaton D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RX Willaton D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RX Willaton D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RX Willaton D.K., Muzny D.M., Sohmetch V., Bouffard G.G.,

RX Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RX Madan A., Touchman J.W., Green E.D., Dickson M.C.,

RX Manger S.T. Mayra M.A.,

RX Marywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

RX Manger S.T. Mayra M.A.,

RX Marywinski M.I., Schaka U., Smailus D.E., Schnerch A., Schein J.E.,

RX Marywinski M.I., Schaka U., Smailus D.E., Schnerch A.,
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Best Local
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16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
05-UUL-2004 (Rel. 44, Last annotation updat
Beta-defensin 3 precursor (BD-3) (mBD-3).
TISSUE SPECIFICITY.
STRAIN=C57BL/6, 129/SvJ, and FVB; TISSUE=Lung;
MEDLINE=20517883; PubMed=10922379;
                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., FUNCTION, INDU
STRAIN=C57BL/6; TISSUE=Lung;
MEDLINE=99307216; PubMed=10377137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=Defb3; Synonyms=Bd3;
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (APR-2004) to the EMBL; BC069285; AAH69285.1;
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                                                                                                              Infect.
[2]
                                                                                                                                                                                                                                               Wilson J
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg R.;
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"Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=PCR rescued clones;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                              in the
                                                                                                                                                                                                                 "Mouse beta-defensin 3 is an inducible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BOUENCE
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                                                                                                                                        Immun.
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                                                                                                                                                                                                                                                                                 Wang X., Meegalla R.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rescued clones;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                            ia of multiple organs.";
67:3542-3547(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7038 MW;
                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION, INDUCTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 133; DB 2;
Pred. No. 8.4e-08
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ation update) (mBD-3).
                                                                                                                                                                                                                                                                                         Wattler
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                                                                                                                                                                                                                 antimicrobial peptide expressed
                                                                                                                                                                                                                                                                                                                                                                                                AND
                                                                                                                                                                                                                                                                                     S., Weiner D.J., Nehls M.C.,
                                                                                                                                                                                                                                                                                                                                                                                                TISSUE SPECIFICITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 64;
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RESULT 14
EAP_BOVIN
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Best Local
Matches 2
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002775;

01-NOV-1997 (Rel. 35, I

01-NOV-1997 (Rel. 35, I

05-JUL-2004 (Rel. 44, I

Enteric beta-defensin p
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DISULFID
DISULFID
DISULFID
SEQUENCE
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"A novel m
trachea.",
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PROPEP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as lon-
modified and this statement is not remov-
entities requires a license agreement (SC
or send an email to license@isb-sib.ch).
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SEQUENCE FROM N.A.

MEDLINE=98147718; PubMed=9488394;

Tarver A.P., Clark D.P., Diamond

Erdjument-Bromage H., Tempst P.,
                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                   Name=EBD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antibiotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR001855; Defensin_beta.
InterPro; IPR006080; Defensin mammal.
Pfam; P700711; Defensin_beta; 1.
smarT; SM00048; DEFSN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGD; MGI:1351612; D
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              s SWISS-PROT entry is copyright. It is produced through a collab ween the Swiss Institute of Bioinformatics and the EMBL outst European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in ified and this statement is not removed. Usage by and for content of the statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Biol. Chem. 275:33314-33320(2000).
FUNCTION: Antimicrobial activity
E.coli and P.aeruginosa.
SUBCELLULAR LOCATION: Secreted.
TISSUS SPECIFICITY: Highest expre
                                                                                                                                                                              taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INDUCTION: By bacterial inlection.
SIMILARITY: Belongs to the beta-defensin family. LAP/TAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE SPECIFICITY: Highest expression in salivary glands epididymis, ovary and pancreas and to a lesser extent in liver and brain. Low or no expression in skeletal muscle i
                                                                                                                                                                                                                                                                                                                                                                                                                         88
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            murine beta-defensin
                                                                                                                      Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MRIHYLLFALLELFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                             KCCRR
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(Rel. 35, Last sequence up
(Rel. 44, Last annotation
a-defensin precursor.
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Pred. No. 7e-0
4; Mismatches
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By similarity.
By similarity.
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                   Russell J.P.,
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  K.S.,
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    Sweeney
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PRACE

RESULT

Q71UAS

D71 UAS

D71 05

Bos taurus

(Bovine).

Neutrophil beta-defensin Name=NBD12;

(TrEMBLrel.

27, 27, 27, n 12

Created)

Last sequence update)
Last annotation updat
(Fragment).

Eukaryota; Metazoa; Mammalia; Eutheria;

Chordata; Craniata; Vertebrata; Cetartiodactyla; Ruminantia; Pe

Pecora;

Euteleostomi; cora; Bovidae;

Bovinae;

Bos.

SEQUENCE FROM N.A.
MEDLINE=99403068; PubMed=10473579;
Yount N.Y., Yuan J., Tarver A., Castro

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Diamond

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071UA5 071UA5; 05-JUL-2004 05-JUL-2004 05-JUL-2004

PRELIMINARY; (TrEMBLrel.

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Matches 29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Enteric beta-defensin: molecular cloning gene with inducible intestinal epithelial with Cryptosporidium parvum infection."; Infect. Immun. 66:1045-1056(1998).
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Gallagher D.S. Jr., Ryan A.M., Diamond G., Bevins C.L.,
Gallagher D.S. Jr., Ryan A.M., Diamond G., Bevins C.L.,
"Somatic cell mapping of beta-defensin genes to cattle &
"Somatic cell mapping of beta-defensin genes to cattle &
U25 and fluorescence in situ localization to chromosome
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                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001855; Defensin_beta.
InterPro; IPR006080; Defensin mamme
Pfam; PF00711; Defensin_beta; 1.
SMART; SM00048; DEFSN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AF000362; AAC48805.1;
EMBL; AF016539; AAC48804.1;
HSSP; P46170; IBNB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as low modified and this statement is not remove entities requires a license agreement (S or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                              Antibiotic; Signal.
SIGNAL 1
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SIMILARITY: Belongs
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FUNCTION: Has antibacterial activity (Potential).
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۲
                                                          μ
                                                                                                                                         Similarity
                                        MRIHYLLFALLFLFLVPVPGH-GGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRG
     MRIHHLLITLIFLVISAGSGFTQGISNPLS---CRLNRGICVPIRCPGNLRQIGTCFTPS
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AA;
                                                                                                                 Conservative
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Enteric beta-defensin.
By similarity.
By similarity.
By similarity.
TE8642AB5F7A6068 CRC64;
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Pred. No. 8.1e-06;
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RA Levy J.N., McCullough C., Cullor J.S., Bevins C.L., Selsted M.E.;
RT "Cloning and expression of bovine neutrophil beta-defensins.
RT Biosynthetic profile during neutrophilic maturation and localization of meture peptide to novel cytoplasmic dense granules.";

of mature peptide to novel cytoplasmic dense granules.";

RT J. Biol. Chem. 274:26249-26258 (1999).

RR LJ. AF105370; AAD43032.1; JOINED.

EMBL; AF105370; AAD43032.1; JOINED.

EMBL; AF105371; AAD43032.1; JOINED.

EMBL; AF105371; AAD43032.1; JOINED.

RINTERPO; IPR001855; Defensin_beta.

DR InterPro; IPR006080; Defensin_mammall.

Pfam; PF00711; Defensin_beta; 1.

DR SMART; SM00048; DEFSN; T.

Pf NON_TER 60 AA; 6464 MW; 38668779EACF66DE CRC64;

Query Match
SEQUENCE 60 AA; 6464 MW; 38668779EACF66DE CRC64;

Query Match
Sept Local Similarity 42.2%; Pred. No. 1e-05;

Matches 27; Conservative 5; Mismatches 26; Indels 6; Gaps 1;

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Perfect score:
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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Maximum Match 100%
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ALIGNMENTS

lingual antimicrobial peptide precursor - bovine C;Species: Bos primigenius taurus (cattle) C;Date: 05-Jan-1996 #Bequence_revision 05-Jan-1996 #text_change 09-Jul-2004 C;Date: 05-Jan-1996 #Befuence_revision 05-Jan-1996 #text_change 09-Jul-2004 C;Accession: A56128; B56128
R;Schonwetter, B.S.; Stolzenberg, E.D.; Zasloff, M.A.
R;Schonwetter, B.S.; Stolzenberg, E.D.; Zasloff, M.A.

Science 267, 1645-1648, 1995
A;Title: Epithelial antibiotics induced at sites of inflammation A;Reference number: A56128; MUID:95192714; PMID:7886453

A;Accession: A56128 A;Molecule type: mRNA A;Residues: 1-64 <SCH>

A;Cross-references: UNIPROT:Q28880; GB:S76279; NID:g894208; PIDN:AAB33727.1; PID:g89420 A;Accession: B56128

protein

RESULT 1 A56128

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RESULT 2
A35947
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A;Residues: 23-64 <8C2>
C;Keywords: antibacterial; antifungal
C;Keywords: antibacterial; actifungal
F;1-20/Domain: signal sequence #status predicted <SIG>
F;23-64/Product: lingual antimicrobial peptide #status
                                                                                                                    R;Smith, L.A.; Schmidt, J.J.

Toxicon 28, 575-585, 1990
A;Title: Cloning and nucleotide sequences of crotamine genes.
A;Reference number: A35947; MUID:90357261; PMID:2389256
A;Accession: A35947
A;Status: preliminary; not compared with conceptual translation
A;Status: preliminary;
                                                                                                                                                                                                                                            crotamine 1 precursor - tropical rattlesnake
C;Species: Crotalus durissus terrificus (tropical rattlesnake, cascabel)
C;Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C;Accession: A35947
                                     A;Molecule type: mRNA
A;Residues: 1-65 <SMI>
A;Cross-references: UNIPROT:P24331
C;Superfamily: crotamine
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Local Similarity 41.5%;
hes 27; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MRLHHLLLALLFLVL--SAGSGFTQGVRNSQSCRRNKGICVFIRCFGSMRQIGTCLGAQV 58
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                                                                                                                                                                                                                                                                                                                                                                                                                     KCCRR 63
    30.3%;
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      Score 108;
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1.7e-05;
hes 33;
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      Length
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Best

Local

Similarity

39.1%;

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crotamine 3 precursor - tropical rattlesnake
C;Species: Crotalus durissus terrificus (tropical rattlesnake, cascabel)
C;Date: 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 09-Jul-2004
C;Accession: C35947
R;Smith, L.A.; Schmidt; J.J.
Toxicon 28, 575-585, 1990
A;Title: Cloning and nucleotide sequences of crotamine genes.
A;Reference number: A35947; MUID:90357261; PMID:2389256
A;Accession: C35947
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                                                                                                                                                                A;Cross references: UNIPROT:P25068; GB:L13373; NID:g289395; PIDN:AAA72363.1; R;Diamond, G; Zasloff, M; Eck, H.; Brasseur, M.; Maloy, W.L.; Bevins, C.L. Proc. Natl. Acad. Sci. U.S.A. 88, 3952-3956, 1991
A;Title: Tracheal antimicrobial peptide, a cysteine-rich peptide from mammali A;Reference number: A39397; MUID:91219490; PMID:2023943
A;Accession: A39397
A;Status: preliminary
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         airway epithelial antimicrobial peptide TAP precursor - bovine
N;Alternate names: antimicrobial peptide, tracheal
C;Species: Bos primigenius taurus (cattle)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
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R;Diamond, G.; Jones, D.E.; Bevins, C.L.
Proc. Natl. Acad. Sci. U.S.A. 90, 4596-4600, 1993
A;Title: Airway epithelial cells are the site of expression of A;Reference number: A47438; MUID:93281626; PMID:8506305
A;Accession: A47438
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A; Residues: 1-64 < DIA >
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Best Local :
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Superfamily: crotamine
                                       1-26/Domain: signal sequence #status predicted <SIG>
27-64/Product: airway epithelial antimicrobial pepti
                                                                                                                                                Status: preliminary Molecule type: mRNA Residues: 1-64 <DI2>
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Query
                                                                                   Introns: 19/2
                                                                                                                             Cross-references: GB:M63023; NID:g2226433;
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9; Mismatches 21;
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Pred, No. 1.8e-05;
9; Mismatches 21;
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  106;
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CRIYGGFCVPIRCPGRTRQIGTCFGRPVKCCRR

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beta-defensin-6 - bovine
N;Alternate names: peptide BNBD-6
C;Species: Bos primigenius taurus (cattle)
C;Date: 24-Feb-1994 #sequence_revision 22-Apr-1995 #text_change 09-Jul-2004
C;Accession: F45495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Superfamily: crotamine F;1-22/Domain: signal sequence #status predicted <SIG>F;13-64/Product: myotoxin a #status predicted <MAT>
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A;Note: the authors translated the codon CAG
C;Comment: This protein inhibits Ca2+ uptake
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                                                                                                            A;Molecule type: protein
A;Residues: 1-42 <SEL>
A;Cross-references: UNIPROT:P46164
A;Cross-references: UNIPROT:P46164
C;Note: sequence modified after extraction from NCBI backbone
C;Neywords: antibacterial; disulfide bond; pyroglutamic acid
C;Neywords: antibacterial; disulfide bond; pyroglutamic acid
C;Neywords: beta-defensin-6 #status experimental <AMl>
F;1-42/Product: beta-defensin-6 #status experimental <AMl>
F;1-Modified site: pyrrolidone carboxylic acid (Gln) #status
F;9-38,16-31,21-39/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                       R;Selsted, M.E.; Tang, Y.Q.; Morris, W.L.; McGuire, P.A.; J. Biol. Chem. 268, 6641-6648, 1993
A;Title: Purification, primary structures, and antibacteri A;Reference number: A45495; MUID:93203264; PMID:8454635
A;Accession: F45495
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A; Residues: 1-65 < NOR>
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                                                           Score 89;
Pred. No.
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Pred. No. 6.6e-05;
1; Mismatches 22
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Toxicon 28, 575-585, 1990
A,Title: Cloning and nucleotide sequences of crotamine genes.
A,Reference number: A35947; MUID:90357261; PMID:2389256
A,Accession: B35947
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A;Title: Purification, primary structures, and antibacterial activities of beta-defensin A;Reference number: A45495; MUID:93203264; PMID:8454635
A;Accession: B47753
A;Molecule type: protein
A;Residues: 1-38 <SEL>
A;Residues: 1-38 <SEL>
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C:Species: Bos primigenius taurus (cattle)
C:Date: 24-Feb-1994 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C:Accession: B47753
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N;Alternate names: peptide BNBD-3
N;Contains: beta-defensin-2
C;Species: Bos primigenius taurus (cattle)
C;Date: 24-Peb-1994 #sequence_revision 22-Apr-1995 #text_change 09-Jul-2004
C;Accession: C45495; B45495
R;Selsted, M.E.; Tang, Y.Q.; Morris, W.L.; McGuire, P.A.; Novotny, M.J.; Smith, W.; Hens
J. Biol. Chem. 268, 6641-6648, 1993
A;Title: Purification, primary structures, and antibacterial activities of beta-defensin
A;Reference number: A45495; MUID:93203264; PMID:8454635
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A; Residues: 1-64 < SMI>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;Cross-references: UNIPROT:P24332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R-RKSLKK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RGRKCCRR 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KILYLLFAFLFLAFLSEPG
                                                                                                                                                                                                                                                                                                                                                                                               CRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCR 64
                                                                                                                                                                                                                                                                                                                                                   CRRNGGVCIPIRCPGPMRQIGTCFGRPVKCCR
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46.9%;
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Pred. No. 0.011
9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 75; DB 2; Pred. No. 0.072; 1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 38,
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C;Accession: A37909
R;Samejima, Y.; Aoki, Y.; Mebs, D.
Toxicon 29, 461-468, 1991
A;Title: Amino acid sequence of a myotoxin from venom of the eastern diamondback rattles
A;Reference number: A37909; MUID:91320359; PMID:1862521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: protein
A;Residues: 3-42 <SE2>
A;Note: sequence extracted from NCBI backbone (NCBIP:127952)
C;Keywords: antibacterial; disulfide bond; pyroglutamic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Accession: C45495
A;Molecule type: protein
A;Residues: 1-42 <SEL>
                                                                                                                                                             A;Cross-references: UNIPROT:P24330
C;Superfamily: crotamine
C;Keywords: myotoxin
                                                                                                                                                                                                                                                                                                                                                                                                             myotoxin - eastern diamondback rattlesnake
C;Species: Crotalus adamanteus (eastern diamondback rattlesnake)
C;Date: 31-Jan-1992 #sequence_revision 31-Jan-1992 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
A37909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;1-42/Product: beta-defensin-3 #status experimental <MA1>F;3-42/Product: beta-defensin-2 #status experimental <MA2>F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status F;9-38,16-31,21-39/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A, Note: sequence modified after extraction from NCBI backbone A_{\ell} Accession: B45495
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A;Molecule type: prote
A;Residues: 1-45 <SAM>
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                                                                                                    Similarity
                                        CRVRGGRC--AVLSCLPKEEQIGKCSTRGR-KCCRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRINRGECVPIRCPGRTRQIGTCEGPRIKCCR 40
CHKKGGHCFPKTVICLPPSSDFGKMDCRWRWKCCKK 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19.9%;
llarity 40.6%;
Conservative
                                                                                Conservative
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                                                                                                    19.5%;
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Pred. No. 0.22;
                                                                                4;
                                                                                Score 69.5; DB Pred. No. 0.35; 4; Mismatches
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                                                                                                                          DB 2;
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A;Cross-references: UNIPROT:P01376; GB:M28072; NID:g165473; R;Selsted, M.E.; Brown, D.M.; DeLange, R.J.; Lehrer, R.I. J. Biol. Chem. 258, 14485-14489, 1983
A;Title: Primary structures of MCP-1 and MCP-2, natural pept A;Reference number: A01647; MUID:84061901; PMID:6643497
A;Moclesulon: A01647
A;Moclecule type: protein
                                                                                                                                                                                                                                                                                                                                                                                                           macrophage antibiotic peptide MCP-1 - rabbit N;Alternate names: antiadrenocorticotropin, corticostatic peptide CS-3; defensin C;Species: Oryctolagus cuniculus (domestic rabbit) C;Date: 28-Aug-1985 #sequence revision 23-Feb-1996 #text_change 09-Jul-2004 C;Accession: A45811; A01647; A2269; B49195 R;Ganz, T.; Rayner, J.R.; Valore, E.V.; Tumolo, A.; Talmadge, K.; Fuller, F. J. Immunol. 143, 1358-1365, 1989 A;Title: The structure of the rabbit macrophage defensin genes and their organ-sp A;Reference number: A45811; MUID:89309825; PMID:2745983 A;Accession: A45811
                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-95 <GAN>
                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary
                                                                                                                                                                                                                                                              PIDN:AAA31388.1; PID:g165474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    their organ-specific
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peptide

antibiotics

of rabbit

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N;Alternate names: peptide BNBD-7 ()Species: Bos primigenius taurus (cattle) (C;Species: Bos primigenius taurus (cattle) (C;Accession: G45495 #sequence_revision 22-Apr-1995 #text_change 09-Jul-2004 (C;Accession: G45495 , V.O.; Morris, W.L.; McGuire, P.A.; Novotny, M.J.; Smith, R,Selsted, M.E.; Tang, Y.O.; Morris, W.L.; McGuire, P.A.; Novotny, M.J.; Smith, J. Biol. Chem. 268, 6641-6648, 1993 J. Biol. Chem. 268, 6641-6648, 1993 A;Title: Purification, primary structures, and antibacterial activities of beta-A;Reference number: A45495; MUID:93203264; PMID:8454635
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G45495
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J. Biol. Chem. 260, 4579-4584, 1985.

A,Title: Primary structures of six antimicrobial peptides of rabbit peritoneal neutrophi A,Reference number: A22569; MUID:85182561; PMID:3988726

A,Accession: A22569
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A;Molecule type: protein
A;Residues: 63-95 <ZHU>
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A;Title: Isolation and mode of action of rabbit corticostatic (antiadrenocorticotropin)
A;Reference number: A49195; MUID:92164536; PMID:1311240
A;Accession: B49195
NyAlternate names: peptide BNBD-9
NyContains: beta-defensin-8
CySpecies: Bos primigenius taurus (cattle)
CyDate: 24-Feb-1994 #sequence revision 22-Apr-1995
CyDate: 24-Feb-1994 #sequence
CyAccession: I45495; H45495
RySelsted, M.E.; Tang, Y.Q.; Morris, W.L.; McGuire,
J. Biol. Chem. 268, 6641-6648, 1993
A/Title: Purification, primary structures, and anti
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                                                                                                                                                                                                                                                                                 beta-defensin-9 - bovine
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Best Local Similarity
Matches 14; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reference number:
Accession: G45495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Residues: 1-40 <SEL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRINRGFCVPIRCPGHRRQIGTCLGPRIKCCR 40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19.3%;
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Pred. No. 0.
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Pred. No. 0.37;
2; Mismatches 1
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                                                                          McGuire,
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       antibacterial activities of beta-defensing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17;
                                                                                                                                        #text_change 09-Jul-2004
                                                                          P.A.; Novotny, M.J.; Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 40
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                                                                          W.; Hens
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                                                   A,Reference number: A01737; MUID:79015339; PMID:694946
A,Accession: A01737
A;Molecule for
                                                                                                                                                                                                                                                                          toxic peptide C - southern Pacific rattlesnake
C;Species: Crotalus viridis helleri (southern Pacific rattlesnake)
C;Date: 31-May-1979 #sequence_revision 08-Oct-1981 #text_change 09
           A; Molecule type:
A; Residues: 1-43
                                                                                                                                                C;Accession: A01737
R;Maeda, N.; Tamiya, N.; Pattabhiraman,
Toxicon 16, 431-441, 1978
A;Title: Some chemical properties of the
                                                                                                                                                                                                                                                                                                                                                                                                    CXRSCH
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protein MAE>

T.R.; Russell,

ቹ. E

Crotalus viridis

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A;Nesidues: 3-74 Note: sequence extracted from NCBI backbone (Nuchrickeywords: pyroglutamic acid C;Keywords: pyroglutamic acid ep;1-40/product: beta-defensin-9 #status experimental F;3-40/product: beta-defensin-8 #status experimental f;3-40/pro
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A;Accession: I45495
A;Molecule type: protei
A;Residues: 1-40 <SEL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Bos primigenius taurus (cattle)
C;Date: 24-Feb-1994 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: D47753; C47753
C;Accession: D47753; C47753
R;Selsted, M.E.; Tang, Y.Q.; Morris, W.L.; McGuire, P.A.; Novotny, M.J.; Smith, W.; Hen J. Biol. Chem. 268, 6641-6648, 1993
A;Title: Purification, primary structures, and antibacterial activities of beta-defensi A;Reference number: A45495; MUID:33203264; PMID:8454635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N;Alternate names: peptide BNBD-13
N;Contains: beta-defensin-12
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A;Note: sequence modified after ex
                                                                                                                                                                                                                                                                                                                                                           A;Note: sequence extracted from NCBI backbone (NCBIP:127962) C;Keywords: disulfide bond F;1-42/Product: beta-defensin-13 #status experimental <MA1>F;5-42/Product: beta-defensin-12 #status experimental <MA2>
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l Similarity 43.8%;
14; Conservative
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Pred. No. 0.37
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Minimum DB seq length: 0
Maximum DB seq length: 200000000
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Match
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Gapop 10.0 , Gapext 0.5
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357
1 MRIHYLLFALLFLFLVPVPG.....LPKEEQIGKCSTRGRKCCRR 65
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/cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/US10S_PUBCOMB.pep:*
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6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
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6/ptodata/1/pubpaa/US08 PUBCOMB.pep:*
6/ptodata/1/pubpaa/US09A PUBCOMB.pep:*
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            4 US-10-091-166B-2
4 US-10-409-366-2
4 US-10-409-362-2
4 US-10-409-332-2
5 US-09-917-340-52
5 US-09-917-340-52
5 US-09-917-340-52
6 US-10-091-166B-10
6 US-10-272-121-10
7 US-10-272-121-10
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            Sequence 2, Appli
Sequence 2, Appli
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Sequence 52, Appli
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Sequence 72, Appli
Sequence 10, Appli
Sequence 4, Appli
Sequence 27, Appli
Sequence 27, Appli
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US-10-091-166B-2

Sequence 2, Application US/10091166B Publication No. US20030143671A1

GENERAL INFORMATION:
APPLICANT: Adder, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
APPLICANT: Beigel-Orme, Stephanie
APPLICANT: Sheppard, Paul O.

FILE REFERENCE: 97-44D1

TLE OF INVENTION: NOVEL BETA-DEFENSINS

ALIGNMENTS

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CURRENT APPLICATION NUMBER: US/10/091,166B
CURRENT FILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR FILING DATE: 1997-09-10
NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastsEEQ for Windows Version 4.0
SEQ ID NO 2
LENGTH: 65
TYPEN: PRT
CRGANISM: Homo sapiens
US-10-091-166B-2
                                                         Query Match 100.0%; Score 357; DB 14; Best Local Similarity 100.0%; Pred. No. 3.2e-35; Matches 65; Conservative 0; Mismatches 0;
1 MRIHYLLFALLFLFLVFVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR 60
                                                                                                                         Length 65;
                                                                   Indels
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RESULT 2
US-10-272-121-2
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-272-121-2
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CURRENT FILING DATE: 2002-10-15
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR PILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: US 60/054,294
PRIOR APPLICATION NUMBER: US 60/054,294
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR FILING DATE: 1997-01-05
PRIOR FILING DATE: 1997-09-10
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APPLICANT: Beigel-Crme, Stephanie
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSING
FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/10/409,366
CURRENT FILING DATE: 203-04-07
PRIOR APPLICATION NUMBER: US/09/636,399A
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-10-09
PRIOR FILING DATE: 1997-11-05
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Publication No. US20030157638A1
GENERAL INFORMATION:
APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
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                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/10409366 Publication No. US20030166912A1 GENERAL INFORMATION:
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Best Local
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APPLICANT: Hollows
APPLICANT: Baindus
APPLICANT: Beigel
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SOFTWARE: FastSEQ for Windows Version 4.0
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TITLE OF INVENTION: NOVEL BETA-DEFENSINS
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Baindur, Nand
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                                                                                                                                                                                                                                                                                                        David A.
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                                                                                                                                                                                                                                                                                 James L.
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; LENGTH: 65
; TYPE: PRT
; ORGANISM: Homo s
US-10-409-366-2
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-409-532-2
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CURRENT APPLICATION NUMBER: US/10/409,532
CURRENT FILING DATE: 2003-04-07
PRIOR APPLICATION NUMBER: US/09/636,399A
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR PPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR PPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 60/064,794
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR PILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
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PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/10409532
Publication No. US20030166913A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.0%; Score 357; DB 14; Best Local Similarity 100.0%; Pred. No. 3.2e-35; Matches 65; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                SOFTWARE: FastSEQ for Windows Version SEQ ID NO 2
LENGTH: 65
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                                                                                                                                              Query Match
Best Local Similarity 100.0%;
Matches 65; Conservative 0;
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                                  61 KCCRR 65
                                                                       1 WRITHYLLFALLFLFLVFVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
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Baindur, Nand
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                                                                                                                                                Score 357; DB 14;
Pred. No. 3.2e-35;
Mismatches 0;
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RESULT 5 US-09-917-340-52 ; Sequence 52, Application US/09917340

APPLICANT: Murphy,

Christopher

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INFORMATION:

US20020090369A1

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US-09-917-340-72
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Best Local
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Patent No. US20020090369A1
                                                                                                                              Query Match
Best Local !
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PRIOR FILING DATE: 2000-07-28
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR FILING DATE: 2000-11-17
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CURRENT APPLICATION NUMBER: US/09/917,340
CURRENT FILING DATE: 2001-07-29
                                                                                                             Matches
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PRIOR FILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Transplant Media FILE REFERENCE: TPLANT-06468 CURRENT APPLICATION NUMBER: US/09/917,340 CURRENT FILLING DATE: 2001-07-29 PRIOR APPLICATION NUMBER: 60/221,632 PRIOR PILING DATE: 2000-07-28 PRIOR PILING DATE: 2000-11-17 PRIOR FILING DATE: 2000-11-17 PRIOR FILING DATE: 2000-11-17
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PRIOR FILING DATE: 2001-05-15
                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS:
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APPLICANT: McAnul
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ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                        LENGTH: 67
                                                                                                                              Local Similarity
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 61 KCCRR 65
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                                                             1 MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEBQIGKCSTRGR 60
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                                      MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEBQIGKCSTRGR 60
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Reid, Ted W.
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ty, Jonathan F.
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100.0%; Pred. No. 3.3e-35;
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                                                                                                               Score 357; DB 9;
Pred. No. 3.3e-35;
; Mismatches 0;
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                                                                                                                      FILE REFERENCE: 97-44D1
CURRENT APPLICATION NUMBER: US/10/091,166B
CURRENT EILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-08-10
PRIOR PILING DATE: 1999-06-25
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR FILING DATE: 1997-11-05
PRIOR FILING DATE: 1997-09-10
NUMBER OF SEQ ID NOS: 72
PRIOR FILING DATE: 1997-09-10
NUMBER OF SEQ ID NOS: 72
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SOFTWARE: PatentIn Ver. 2
SEQ ID NO 2
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APPLICANT: MCCRAY JR, PAUL B.
APPLICANT: TACK, BRIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence 2, Application US/09872852
Patent No. US20020115602A1
; ORGANISM: Homo sapiens
JS-10-091-166B-10
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                                     SOFTWARE: FastSEQ for Windows Version 4.
SEQ ID NO 10
LENGTH: 67
TYPE: PRT
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APPLICANT: SCHUTTE, BRIAN C.
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44D1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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Baindur, Nand
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Pred. No. 3.3e-35;
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US-10-409-366-10
S-10-409-366-10
Sequence 10, Application US/10409366
Publication No. US20030166912A1
GENERAL IMPORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 1997-09-10
NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 10
LENGTH: 67
TYPE: PRT
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Best Local
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PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR APPLICATION NUMBER: US 60/058,335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT FILING DATE: 2002-10-15
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR FILING DATE: 1999-06-25
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CURRENT APPLICATION NUMBER: US/10/272,121
CURRENT FILING DATE: 2002-10-15
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APPLICANT: Hollow
APPLICANT: Beigel-Orme, Stephanie APPLICANT: Sheppard, Paul O. TITLE OF INVENTION: NOVEL BETA-DEFENSINS FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/10/409,366
CURRENT FILING DATE: 2003-04-07
                                                                                 APPLICANT: Adler, David A.
APPLICANT: Holloway, Jame
APPLICANT: Baindur, Nand
APPLICANT: Beigel-Orme, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
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Baindur, Nand
Beigel-Orme, Stephanie
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No. US20030157638A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sheppard,
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ilarity 100.0%;
Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
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                                                                                                                      James L.
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Pred. No. 3.3e-35;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 357; DB 14;
Pred. No. 3.3e-35;
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; TYPE: PRT; ORGANISM: Homo sapiens US-10-409-366-10
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US-10-409-532-10
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CURRENT FILING DATE: 2003-04-07
PRIOR APPLICATION NUMBER: US/09/636,399A
PRIOR FILING DATE: 2000-08-10
PRIOR PRICATION NUMBER: 60/058,335
PRIOR PRICATION NUMBER: 60/058,335
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 1998-09-10
PRIOR PRICING DATE: 2000-08-10
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Best Local S
Matches 65
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 10
LENGTH: 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 10, Application US/10409532 Publication No. US20030166913A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                      SOFTWARE: FastSEQ
SEQ ID NO 10
LENGTH: 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
                                                                                                                                                           Best
                                                                                                                                      Matches
                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
APPLICANT: Baigel-Orme, Stephanie
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: US/09/636;
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                          TYPE:
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65; Conserv
61 KCCRR 65
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Similarity 100.0%;
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                                                         MRIHYLLFALLFLFLVÞVÞGHGGIINTLQKYYCRVRGGRCAVLSCLÞKEBQIGKCSTRGR
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                                                                                                                                        Conservative
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                                                                                                                                      Score 357; DB 14; Pred. No. 3.3e-35; Mismatches 0;
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RESULT 12
US-09-872-852-4
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RESULT 14
US-10-091-166B-36
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                                                                                                                                                                                                                                                                                                                   SOFTWARE: Pa
SEQ ID NO 27
LENGTH: 44
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SEQ ID NO 4
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Best Local Similarity
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Best Local Similarity
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APPLICANT: TACK, BRIAN
APPLICANT: JIA, HONG PENG
APPLICANT: SCHUTTE, ERIAN C.
TITLE OF INVENTION: HUMAN BETA-DEFENSIN-3 (HBD-3), A HIGHLY CATIONIC
TITLE OF INVENTION: BETA-DEFENSIN ANTIMICROBIAL PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/208,792
PRIOR FILING DATE: 2000-06-01
NUMBER OF SEQ ID NOS: 24
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CURRENT FILING DATE: 2001-06-01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Forssmann, Wolf-Georg
APPLICANT: Conejo-Garcia, Jose-Ramon
APPLICANT: Adermann, Knut
TITLE OF INVENTION: Method for Producing and Using Novel Human Defensins
TITLE OF INVENTION: Active Proteins for Treating Infections and other I
                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: DE10033505.5
PRIOR FILING DATE: 2000-07-11
NUMBER OF SEQ ID NOS: 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 022584us
CURRENT APPLICATION NUMBER: US/10/332,765
CURRENT FILING DATE: 2003-01-13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION:
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                                                                                                                    24 IINTLOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
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                                                                                                                                                                      42;
                                                                                                                                                                                                                                                                                                                                                            PatentIn Ver. 2.1
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100.0%;
                                                                                                                                                                                        65.5%; Score 234; DB 16; 100.0%; Pred. No. 1.2e-20;
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; Pred. No. 2.3e-21
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                                                                                                                                                                                                                 DB 16; Length 44;
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CURRENT FILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR FILING DATE: 1999-06-25
PRIOR FILING DATE: 1999-06-25
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR PILING DATE: 1997-11-05
PRIOR PILING DATE: 1997-11-05
PRIOR PILING DATE: 1997-11-05
PRIOR PILING DATE: 1997-11-05
PRIOR PRIOR DATE: 1997-11-05
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                                                                                             Query Match
Best Local Similarity 91.5%;
Matches 43; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR FILING DATE: 1997-09-10
PRIOR FILING DATE: 1997-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Holloway, James L. APPLICANT: Baindur, Nand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 97-44D1
                                                                                                                                                                                                                 FEATURE:
NAME/KEY: VARIANT
LOCATION: (45)...(45)
OTHER INFORMATION: leucine, isoleucine, valine, phenylalanine,
OTHER INFORMATION: methionine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ I
                                                                                                                                                                                                                                                                                                                                           FEATURE: OTHER INFORMATION: Defensin polypeptide
                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                            19 PGHGGIINTLOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FastSEQ for Windows Version 4.0
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Sheppard, Paul O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 David A
                                                                                                    0
                                                                                                                         Score 231; DB 1
Pred. No. 3e-20;
                                                                                                    Mismatches
                                                                                                                                                   DB 14;
                                                                                                                                                 Length 48;
                                                                                                       Indels
                                                                                                       0
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WESULT 15

US-10-272-121-36

US-10-272-121-36

ISEQUENCE 36, Application US/10272121

SEQUENCE 1 INFORMATION:
APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Holloway, James L.
APPLICANT: Beigel-Orme, Stephanie
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44D2

CURRENT APPLICATION NUMBER: US/10/272.121

CURRENT FILING DATE: 2002-10-15

PRIOR APPLICATION NUMBER: US 09/636,399

PRIOR FILING DATE: 2000-08-10

PRIOR APPLICATION NUMBER: US 09/344,097

PRIOR FILING DATE: 1999-06-25

PRIOR APPLICATION NUMBER: US 09/344,097

PRIOR APPLICATION NUMBER: US 09/150,786

PRIOR APPLICATION NUMBER: US 60/064,294

PRIOR APPLICATION NUMBER: US 60/064,294

PRIOR FILING DATE: 1997-11-05

PRIOR FILING DATE: 1997-09-10

NUMBER OF SEQ ID NOS: 72

SEQ ID NO 36
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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
BC
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seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Issued_Patents AA:*
1: /cgn2_6/ptodata/1
2: /cgn2_6/ptodata/1
3: /cgn2_6/ptodata/1
4: /cgn2_6/ptodata/1
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Match Length
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/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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        US-09-636-399A-2
US-09-917-340-72
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US-09-636-399A-36
US-09-636-399A-39
US-09-636-399A-42
US-09-636-399A-42
US-09-636-399A-42
US-09-636-399A-23
US-09-636-399A-23
US-09-636-399A-24
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RESULT 2
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US-09-636-399A-60		US-09-636-399A-19	US-09-636-399A-56	US-09-636-399A-18	US-09-636-399A-14	US-09-636-399A-53	US-09-636-399A-32	US-09-636-399A-54	US-09-636-399A-33	US-09-636-399A-34	US-09-636-399A-51	US-09-636-399A-29	US-09-636-399A-52	US-09-636-399A-30	US-09-636-399A-31	US-09-636-399A-49	US-09-636-399A-26	
Sequence 60, Appl	Sequence 55, Appl	-	-	Sequence 18, Appl	•	Sequence 53, Appl	•	e 54,	Sequence 33, Appl	`	-	•	•	-	e 31,	-	`	

ALIGNMENTS

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US-09-336-339A-2
US-09-336-339A
Sequence 2, Application US/09636399A
Patent No. 6576755
GENERAL INFORMATION:
APPLICANT: Adler, David A.
APPLICANT: Hollowsy, James L.
APPLICANT: Baindur, Mand APPLICANT: Shepaard, Pail O.
TITLE OF INVESTIGATION UNMERR: US/09/636,399A
CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT APPLICATION NUMBER: 09/064,294
PRIOR APPLICATION NUMBER: 09/064,294
PRIOR APPLICATION NUMBER: 09/064,294
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/064,399
PRIOR APPLICATION: 09/064,399
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CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 1998-09-10
PRIOR PILING DATE: 1998-09-10
PRIOR PILING DATE: 2000-08-10
PRIOR PILING DATE: 2000-08-10
NUMBER OF SEQ. ID NOS: 72
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US-09-917-340-52
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CURRENT FILING DATE: 2001-07-29
PRIOR APPLICATION NUMBER: 60/221,632
PRIOR FILING DATE: 2000-07-28
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR FILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: 60/290,932
PRIOR FILING DATE: 2001-05-15
PRIOR FILING DATE: 2001-05-15
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SEQ ID NO 10
LENGTH: 67
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SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 52
LENGTH: 67
TYPE: PRT
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Best Local Similarity
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Best Local :
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APPLICANT: McAnulty, Jonathan F.
APPLICANT: Reid, Ted W.
TITLE OF INVENTION: Transplant Media
FILE REFERENCE: TPLANT-06468
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      61 KCCRR 65
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                                                                      MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
                                            MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLFKEEQIGKCSTRGR
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Beigel-Orme, Stephanie
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                                                                                                                       100.0%; Score 357; DB 4; Length 67; ilarity 100.0%; Pred. No. 2e-37; Conservative 0; Mismatches 0; Indels
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Pred. No. 2e-37;
Mismatches
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FILE REFERENCE: 97-44C2
CURRENT FILING DATE: 2000-08-10
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR RELING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR FILING DATE: 1997-11-05
PRIOR RELING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR RELING DATE: 1986-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 36
LENGTH: 48
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PRIOR FILING DATE: 2000-07-28
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR FILING DATE: 2000-11-17
PRIOR FILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: 60/290,932
PRIOR APPLICATION NUMBER: 60/290,932
PRIOR FILING DATE: 2001-05-15
PRIOR FILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 96
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SEQ ID NO 72
LENGTH: 67
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Patent No. 669623
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Best Local :
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Patent No. 6576755
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Murphy, Christopher J.
APPLICANT: McAnulty, Jonathan F.
APPLICANT: Reid, Ted W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Adler, David A. APPLICANT: Holloway, Jame APPLICANT: Baindur, Nand
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: NOVEL BETA-DEFENSINS FILE REFERENCE: 97-44C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Defensin polypeptide
NAME/KEY: VARIANT
LOCATION: (45)...(45)
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Baindur, Nand
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100.0%; Pred. No. 2e-37;
tive 0; Mismatches
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PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
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Best Local Similarity
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                                                                                                                                                                                                                     Sequence 38, Application Patent No. 6576755 GENERAL INFORMATION:
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CURRENT FILING DATE: 2000-08-10
                                                                                         APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 3.0
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                                                 FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
                                                                                                                                                               APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
               PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Defensin polypeptide NAME/KEY: VARIANT LOCATION: (45) ...(45) OTHER INFORMATION: Xaa is Leu, Ile, Val, Phe, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q ID NO 35
LENGTH: 49
RIOR APPLICATION NUMBER: 60/064,294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EATURE:
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                                                                                                                                                                                                                                                                                                                                                      ÞGHGGIINTLÓLÍYYCRVRGGRCÁVLSCLÞKEECIGKMSTRGRKCXRR 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Holloway, Jam
Baindur, Nand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sheppard,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Beigel-Orme,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/09636399A
                                                                                                                                               Beigel-Orme, Stephanie
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   James L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64.7%;
91.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  64.7%;
91.5%;
                                                                                                                                                                                                                                                               US/09636399A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 231; DB 4;
Pred. No. 7.8e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 231;
Pred. No. 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                    8e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4; Length 49;
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PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
SOPTWARE: FRANKEQ for Windows Version 3.
SEQ ID NO 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Defensin polypeptide
NAME/KEY: VARIANT
LOCATION: (44)...(44)
OTHER INFORMATION: Xaa is Leu, Ile, Val, Phe,
US-09-636-399A-38
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US-09-636-399A-37
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GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 37
                                                                      Matches
                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Adler, David A. APPLICANT: Holloway, Jame APPLICANT: Baindur, Nand
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2000-08-10
                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 1998-09-10 PRIOR APPLICATION NUMBER: 09/636,399
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PRIOR APPLICATION NUMBER: 09/150,786
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CURRENT FILING DATE: 2000-08-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 97-44C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                                   PEATURE:
OTHER INFORMATION: Defensin polypeptide
NAME/KBY: VARIANT
LOCATION: (44)...(44)
OTHER INFORMATION: Xaa is Leu, Ile, Phe
                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
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                       GHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
 GHGGIINTLOLYYCRVRGGRCAVLSCLPKEECIGKMSTRGRKCXRR 46
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                                                                        Conservative
                                                                                                                                                                 Xaa is Leu, Ile, Phe, Val, or Met
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91.3%;
                                                                                          62.7%;
91.3%;
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Pred. No. 5.7e-21;
                                                                        Score 224; DB 4;
Pred. No. 5.9e-21;
0; Mismatches 4
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RESULT 9 US-09-636-399A-40

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                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/056,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 2000-8-10
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Best Local Similarity
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APPLICANT:
                                                                                                                        SEQ ID NO 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 6576755
GENERAL INFORMATION:
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PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
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CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
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NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Adler, David A.
APPLICANT: Holloway, Jame
APPLICANT: Baindur, Nand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Adler, David A.
                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 97-44C2
                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
OTHER INFORMATION: Defensin polypeptide
NAME/KEY: VARIANT
LOCATION: (43)...(43)
OTHER INFORMATION: Xaa is Leu, Ile, Phe
                                                                                                                                         SOFTWARE:
                                                                                                                                                                  NUMBER OF SEQ ID NOS:
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ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Defensin polypeptide
NAME/KEY: VARIANT
                                                      ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41;
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6576755
                                                                                                                                            FastSEQ
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Baindur, Nand
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                                                                                                                                              for Windows Version 3.0
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91.1%;
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Pred. No. 3
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.2e-20;
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Sequence 41, Application US/09636399A Patent No. 6576755
GENERAL INFORMATION:

APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
APPLICANT: Beigel-Crme, Steph

APPLICANT: Beiger-vamm.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
TITLE OF INVENTED: 97-44C2
TOTAL OF THE PROPERTY OF

FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335

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; LOCATION: (43)...(43); OTHER INFORMATION: Xa
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RESULT 12
US-09-636-399A-41
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                  Matches
                                                                                                                                                                  Query Match
                                                                                                                                                    Best
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APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
APPLICANT: Beigel-Orme, Stephanie
APPLICANT: Sheppard, Paul C.
                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
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PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
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CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
                                                                                                                                                                                                                 LOCATION: (42)...(42)
OTHER INFORMATION: Xaa is Leu,
                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                NAME/KEY: VARIANT
LOCATION: (42)...
                                                                                                                                                                                                                                                                  OTHER INFORMATION: Defensin polypeptide
                                                                                                                                                                                                                                                                                 FEATURE:
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nes 40; Conserv
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65767
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                                                                                               22 GGIINTLOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
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                                                                    GGIINTLQLYYCKVRGGRCAVLSCLEKEECIGKMSTRGRKCXRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09636399A
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91.1%;
                                                                                                                                                  90.9%;
                                                                                                                                    Score 210; DB Pred. No. 3.1e 0; Mismatches
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Pred. No. 3.2e-20;
0; Mismatches 4
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PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10

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Patent No. 6576755
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Best Local Similarity 90.9%;
                                                                                                                Query Match
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PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: 09/636,399
                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: 1997-10-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/058,335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: VARIANT
LOCATION: (42)...(42)
OTHER INFORMATION: Xaa is Leu, Ile, Phe, Val,
                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Adler, David A.
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                                                                                                                                                                              NAME/KEY: VARIANT
LOCATION: (41)...(41)
OTHER INFORMATION: Xaa is Leu, Ile, Phe, Val, or Met
                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                         OTHER INFORMATION: Defensin polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLICANT: Sheppard, Paul O.
TLE OF INVENTION: NOVEL BETA-DEFENSINS
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                                                                                                 Local
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                                 23 GIINTLOKYYCRVRGGRCAVLSCLPKEBQIGKCSTRGRKCCRR 65
                                                                                               Similarity
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  GIINTLOLYYCKVRGGRCAVLSCLPKEECIGKMSTRGRKCXRR 43
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Baindur, Nand
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                                                                            57.1%; ilarity 90.7%; Conservative
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Pred. No. 3
                                                                                               Score 204; DB 4;
Pred. No. 1.7e-18;
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PRIOR FILING DATE: 1997-10-09
PRIOR PELICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR PELING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
PRIOR FILING DATE: 2000-08-10
                                                                 Query Match
Best Local Similarity
Matches 39; Conserv
                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Beigel-Orme, Stephanie
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/636,399A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 72
                                                                                                                                                                                     OTHER INFORMATION: Defensin polypeptide
NAME/KEY: VARIANT
LOCATION: (41)...(41)
OTHER INFORMATION: Xaa is Leu, Ile, Val, Phe, or
                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                           FEATURE:
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                                        23 GIINTLOKYYCKVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
1 GIINTLOLYYCRVRGGRCAVLSCLPKEECIGKMSTRGRKCXRR
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                                                                                    Conservative
                                                                                                      57.1%;
90.7%;
                                                                                                      Score 204; DB 4;
Pred. No. 1.7e-18;
                                                                                                                               Length 45;
                                                                                        Indels
                                                                                        0;
                                                                                        Gaps
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SESULT 15

US-09-636-399A-22

Sequence 22, Application US/09636399A

Patent NO. 6576755

GENERAL INFORMATION:
APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
APPLICANT: Beigel-Orne, Stephanie
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION NUMBER: US/09/636,399A
CURRENT APPLICATION NUMBER: 60/058,335
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR APPLICATION NUMBER: 09/64,294
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 1998-09-10
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 22
TYPE: DRT
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Defensin polypeptide

US-09-636-399A-22 Search completed: October 13, 2004, 14:52:11 Job time : 49 secs 밁 Query Match 55.5%; Score 198; DB 4; Length 42; Best Local Similarity 90.5%; Pred. No. 9e-18; Matches 38; Conservative 0; Mismatches 4; Indels 24 IINTLOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65 0; Gaps 0;

Page 6

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SUMMARIES

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This sequence represents the human zampl protein which is a member of the beta-defensin protein family. Zampl protein is useful as a pharmaceutical composition, useful for treatment of e.g. bacterial, fungal and viral infections. They are also useful pro-inflammators, for treating chronic tissue damage, and for stimulating the immune response, for treatment of AIDS or chemotherapy patients. Zampl polypeptides and antibodies are useful for studying activity of the melanocortin family, studying ion flux in cell culture, and studying cytocidal activity against mammalian

Claim 1; Page 70; 79pp; English.

New zampl polypeptide and polynucleotide, human beta-defensins - useful as diagnostic reagents and for treatment of microbial infections, and

N-PSDB; AAX29985

WPI; 1999-215064/18.

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ALIGNMENTS

10-SEP-1997; 10-SEP-1997; 05-NOV-1997; Human; zamp1; beta-defensin; bacterium; fungus; virus; inflammation; tissue damage; immune response; AIDS; chemotherapy; melanocortin; antibody; ion flux; cytocidal activity; mammalian cell. Homo sapiens Beta-defensin family member zampl. Adler D, 10-SEP-1998; 18-MAR-1999. 06-JUL-1999 (first entry) AAY07243 standard; protein; WO9913080-A1. (ZYMO) ZYMOGENETICS INC. Holloway JL, 97US-0058335P. 97US-00926529. 97US-0064294P. 97US-00964687. 98WO-US019222 Baindur N, 65 Beigel S

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RESULT 2
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10-SEP-1997;
05-NOV-1997;
05-NOV-1997;
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                                            This sequence represents the human zampl protein which is a member of the beta-defensin protein family. Zampl protein is useful as a pharmaceutical composition, useful for treatment of e.g. bacterial, fungal and viral infections. They are also useful pro-inflammators, for treating chronic tissue damage, and for stimulating the immune response, for treatment of AIDS or chemotherapy patients. Zampl polypeptides and antibodies are useful for studying activity of the melanocortin family, studying ion flux in cell culture, and studying cytocidal activity against mammalian cells in culture, by incubation with the cells. Zampl polypeptides are especially useful for studying epithelial defensin induction in cell culture when exposed to pathogenic stimuli
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llarity 100.0%;
Conservative 0
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Pred. No. 2.8e-36;
Mismatches 0;
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sin induction in cell
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2 and SAP-3 which have antibiotic, antibacterial, antifungal and
antiviral activity. (I), and their precursors, are useful for treating of
preventing microbial infections (caused by bacteria, fungi or viruses),
particularly where they (or human cells expressing them) are included in
wound dressings, and to produce specific antibodies (Ab) or their
fragments. Ab are used as diagnostic reagents, e.g. to detect a
deficiency of (I) or the presence of a (I) variant. This sequence
represents the human SAP-3 protein described in the method of the
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08-OCT-1999;
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                                                                                                                                                                                                                                                                                                New human antibiotic peptides, particularly when incorporated
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DB; AAA71755.
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infection; wound dressing; diagnostic reagent.
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Pred. No. 2.9e-36;
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Pred. No. 2.9e-36;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                            The present invention relates to the isolation of a novel antimicrobial peptide, human beta-defensin-3 (HBD-3). Also described is a method of inhibiting growth of a microbe by introducing into a host or environment the antimicrobial peptide of the invention. The peptide is useful for treating or preventing microbial growth or infections, e.g. pulmonary infections when administered by inhalation. The peptide can be applied or a work surface or a surgical instrument for the prevention and/or suppression of microbial growth. The present sequence represents HBD-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human beta-defensin-3 (HBD-3)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      microbial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                         New human beta-defensin 3 peptides and nucleic acids encoding peptides, useful for treating or preventing microbial growth or infection, or in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2001; 2001WO-US018057
                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 96; 110pp; English.
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            Transplant media associated defensin peptide
                                                                                 AAU91016 standard; peptide; 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-106302/14.
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                                                                                                                                                                   KCCRR 65
                                                                                                                                                                                             MRIHYLLFALLELFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
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                                     (first entry)
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                                                                                                                                                                                                                                                    100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    e; human beta-defensin-3; HBD-3; infection; pulmonary infection.
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                                                                                                                                                                                                                                                     Score 357; DB 5;
Pred. No. 2.9e-36;
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                                                                                                                                                                                                                                            Mismatches
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RESULT 6
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                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cell surface receptor binding compound; kidney transplant; cardioplegia; organ transplant; transplant rejection; defensin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Media comprising antimicrobial polypeptides or cell surface receptor binding compounds useful preservation of organs prior to transplant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-JUL-2000; 2000US-0221632P
17-NOV-2000; 2000US-0249602P
15-MAY-2001; 2001US-0290932P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 8; Page 28; 78pp; English.
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                                          Transplant media associated defensin peptide #37.
                                                                                                                                   AAU91036 standard; peptide; 67
                                                                                                                                                                                                                                                                                                                                                                                                                             transplant media
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llarity 100.0%;
Conservative 0
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Pred. No. 2.9e-36;
; Mismatches 0;
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Transplant; antimicrobial peptide; pore forming agent; cell surface receptor binding compound; kidney transplant;

cardioplegia;

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RESULT 7
AAO17768
ID AAO1
XX
AC AAO1
XX
AC AAO1
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DT 30-A
XX
DT Huma
XX
Huma
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KW Huma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention describes new transplant compositions comprising antimicrobial polypeptides or pore forming agents and/or cell surface receptor binding compounds. The media is capable of extending the preservation period past 72 hours and can provide organs with increased functionality upon transplant, animals receiving kidneys stored in the media of the present invention for either three or four days had serum creatinine levels of less than half of those observed in control animals receiving kidneys stored in UW solution (defined in the specification) alone. Lower serum creatinine levels are indicative of healthier kidneys and a more preferable prognosis for the transplant patient. The media of the invention are useful for decreasing the incidence and/or severity of delayed graft function in patients receiving transplanted kidneys stored and/or treated in the media. The media may also be used in procedures such as cardioplegia. It is contemplated that transplant of healthier organs leads to a decrease in chronic rejection. This sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Media comprising antimicrobial polypeptides or cell surface receptor binding compounds useful preservation of organs prior to transplant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organ transplant;
Human; beta-defensin-3; hBD-3; bacterial infection; gene therapy; respiratory system; cystic fibrosis; inflammation; urogenital tract; antibacterial; fungicide; cytostaric; antiinflammatory; antiulcer; gastrointestinal tract; septicaemia; apoptosis induction; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 67
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17-NOV-2000; 2000US-0249602P
15-MAY-2001; 2001US-0290932P
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                                                                                                                   30-AUG-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-JUL-2001; 2001WO-US023785
                                                                                                                                                                               AAO17768 standard; protein;
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                                                                                 derivative
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Pred. No. 2.9e-36;
Mismatches 0;
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RRESULT 8
ADNOS
ID ADNO
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DE Anti
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 derivatives. The peptide, its coding sequence and vectors containing the coding sequence are useful in (gene) therapy and diagnosis, especially for preventing or treating a wide range of microbial infections (particularly Burkholderia cepacia and pseudomonas aeruginosa in the respiratory tract, especially in cases of cystic fibrosis, and Helicobacter pylori, also inflammatory diseases of the gastrointestinal and urogenital tracts, sepsis and yeast infections), and for inducing apoptosis for treating malignant melanoma and tumours. The present sequence is a derivative of human BD-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New human beta-defensin 3, infection and tumors, also
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30-MAR-2001; 2001DE-01016220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 67 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2; Page 23; 36pp; German.
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Maegert H;
                                                        25-SEP-2002; 2002US-0414006P
                                                                                                                25-SEP-2003; 2003WO-US030907
                                                                                                                                                                                                                           WO2004028479-A2
                                                                                                                                                                                                                                                                                                                                      antipsoriatic;
                                                                                                                                                                                                                                                                                                                                                                                              Antipsoriatic protein sequence #1157
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard; protein; 67
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention relates to human beta-defensin-3 (hBD-3) and its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PHARM GMBH
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                                                                                                                                                                                                                                                                                                                                      gene therapy; psoriasis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          useful for treating or preventing microbial related nucleic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 357; DB 5;
Pred. No. 2.9e-36;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                            diagnosis
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to novel polynucleotide and polypeptides for treating psoriasis or a sequence having at least 80% identity to the above sequences. The nucleic acid is useful for preparing a composition for diagnosing or treating psoriasis in a mammal. This sequence corresponds to one of the polypeptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New PRO nucleic acid or polypeptide, useful for preparing a pharmaceutical composition for diagnosing or treating psoriasis in
 The present invention relates to a method for a subject. The method comprises administering Beta Defensin-inducing agent e.g. a human BD
                                                                                                                                                                                                                                                                                            Human beta-defensin-3,
                                                                                                                                                                                                                                                                                                                                                     ADQ08006 standard;
                                                                                                                                                                                                       01-JUL-2004
                                                                                                                                                                                                                          WO2004054603-A2
                                        Claim
                                                                    Inhibiting defensin-2
                                                                                                                                                                 13-DEC-2002;
                                                                                                                                                                                     15-DEC-2003; 2003WO-US040233
                                                                                                                                                                                                                                                                        Anti-HIV; Vaccine;
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DB; ADN05994.
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DB; ADQ08007, ADQ08008,
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                                                                                                                                                                                                                                                                 antiviral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                     KCCRR
                                                                                                                                                                                                                                                                                                                                                                                                                       KCCRR
                                       Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clark H,
                                                                    HIV infection in a subject comprises administering human or human Beta defensin-3 agent or Beta Defensin-inducing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
larity 100.0%;
Conservative (
                                                                                                                                                CASE
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                                      10; 63pp;
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                                                                                                                                                WESTERN RESERVE
                                                                                                                                                                                                                                                                                                                                                    protein;
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                                                                                                                                                                                                                                                                          AIH
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                                                                                                                                                                                                                                                                          infection; Beta Defensin;
                                       English
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                                                                                               ADQ08009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 357; DB 8; I
Pred. No. 2.9e-36;
Pred. No. 0;
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                                                                                                                                                                                                                                                                                             SEQ ID
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                                                                                                                                                                                                                                                                                              15.
   HBD) agent such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Williams PM,
                                                                                                                                                                                                                                                                          BD;
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    infection
(BD) agent
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RESULT 10
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                                                                             This invention describes the novel active, mature human proteins (I) S 2 and SAP-3 which have antibiotic, antibacterial, antifungal and antiviral activity. (I), and their precursors, are useful for treating preventing microbial infections (caused by bacteria, fungi or viruses) particularly where they (or human cells expressing them) are included wound dressings, and to produce specific antibodies (Ab) or their fragments. Ab are used as diagnostic reagents, e.g. to detect a deficiency of (I) or the presence of a (I) variant. This sequence represents the mature human SAP-3 protein described in the method of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SAP-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human SAP-3 mature protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                        New human antibiotic peptides, particularly when incorporated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-1999;
08-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     treatment;
                                                                                                                                                                                                                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Christophers
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ent; microbial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEBQIGKCSTRGR
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99DE-01049436.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antibiotic; antibacterial; antifungal; antiviral;
infection; wound dressing; diagnostic reagent.
                                                                                                                                                                                                                                                                                                                                                                German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     45
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Pred. No. 2.9e-36;
                                                                                                                                                                                                                                                                                                                                                                                                                                           useful for treating microbial infections in wound dressings, also related nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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Query Match

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AAO17767
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                                                                                                                                                                       Query Match
                                                                                                                                                    Matches
                                                                                                                                                                                                                     The present invention relates to the isolation of a novel antimicrobial peptide, human beta-defensin-3 (HBD-3). Also described is a method of inhibiting growth of a microbe by introducing into a host or environment the antimicrobial peptide of the invention. The peptide is useful for treating or preventing microbial growth or infections, e.g. pulmonary infections when administered by inhalation. The peptide can be applied on a work surface or a surgical instrument for the prevention and/or suppression of microbial growth. The present sequence represents HBD-3
                                                                                                                                                                                                        mature protein sequence #2
                                                                                                                                                                                                                                                                                                                                             New human beta-defensin 3 peptides and nucleic acids encoding peptides, useful for treating or preventing microbial growth or infection, or in
                   30-AUG-2002
                                                                                                                                                                                          Sequence 45 AA;
                                                                                                                                                                                                                                                                                                                 Claim 29; Page 98; 110pp; English.
                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-106302/14.
                                                                                                                                                                                                                                                                                                                                                                                                Mccray PB,
                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; antimicrobial peptide; human beta-defensin-3; HBD-3; microbial growth; microbial infection; pulmonary infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human beta-defensin-3 (HBD-3) mature protein sequence #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU09709 standard; protein; 45
                                                         AAO17767 standard; peptide;
                                                                                                                                                                                                                                                                                                                                      gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001; 2001WO-US018057
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                                                                                                                              23 GIINTLOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
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                                                                                                                                                              Similarity
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                                                                                                          GIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 43
                                                                                                                                                                                                                                                                                                                                                                                               Tack B,
                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0208792P
                  (first entry)
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                                                                                                                                                             67.2%; Score 240; 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                Jia HP,
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thes 0;
                                                                                                                                                            5.2e-22;
                                                                                                                                                                       DB 5;
                                                                                                                                                                    Length 45;
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                 01-JUN-2001; 2001WO-US018057
                                                                                                                                                                                                                                                                                                                          Sequence 45 AA;
                                      06-DEC-2001
                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-435959/46.
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                                                         WO200192309-A2
                                                                                                                                                   26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maegert H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Forsemann W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-NOV-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (IPFP-) IPF PHARM GMBH
                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                  1 Similarity
43; Conserv
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Human beta-defensin-3 derivative

01-JUN-2000; 2000US-0208792P.

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Human; antimicrobial peptide; human beta-defensin-3; HBD-3; microbial growth; microbial infection; pulmonary infection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; beta-defensin-3; hBD-3; bacterial infection; gene therapy; respiratory system; cystic fibrosis; inflammation; urogenital tracantibacterial; fungicide; cytostatic; antlinflammatory; antiulcer;
                                                                                                                                                                                                                                                                                       AAU09708 standard; protein; 41
                                                                                                    Human beta-defensin-3 (HBD-3) mature protein sequence #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 2; Page 23; 36pp; German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New human beta-defensin 3, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-NOV-2000; 2000DE-01056365.
30-MAR-2001; 2001DE-01016220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nfection and tumors, also related nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23 GIINTLOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001WO-EP013174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kluever E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tract; septicaemia; apoptosis induction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; 1
tive 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 240; DB 5; L
Pred. No. 5.2e-22;
                                                                                                                                                                                                                                                                                                  A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Adermann K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            preventing microbial
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RESULT 14
AAO17766
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Matches 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to the isolation of a novel antimicrobial peptide, human beta-defensin-3 (HBD-3). Also described is a method of inhibiting growth of a microbe by introducing into a host or environment the antimicrobial peptide of the invention. The peptide is useful for treating or preventing microbial growth or infections, e.g. pulmonary infections when administered by inhalation. The peptide can be applied on a work surface or a surgical instrument for the prevention and/or suppression of microbial growth. The present sequence represents HBD-3 mature protein sequence #1
                                                                                                                                                                                                                                                                                                                                                          Human; beta-defensin-3; hBD-3; bacterial infection; gene therapy; respiratory system; cystic fibrosis; inflammation; urogenital trac antibacterial; fungicide; cytostatic; antiinflammatory; antiulcer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 41 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 28; Page 97; 110pp; English.
                                                                                                                                                                                         14-NOV-2000; 2000DE-01056365
30-MAR-2001; 2001DE-01016220
                                                                                                                                                                                                                                   14-NOV-2001; 2001WO-EP013174.
                                                                                                                                                                                                                                                                                        WO200240512-A2
                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                             gastrointestinal tract; septicaemia; apoptosis induction; cancer
                                                                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                                                                                                                                                                                                                                                                                                                                           30-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAO17766 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human beta-defensin 3 peptides and nucleic acids encoding peptides, useful for treating or preventing microbial growth or infection, or in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mccray PB,
                                                                                            WPI; 2002-435959/46
                                                                                                                                                               (IPFP-) IPF PHARM GMBH.
                                                                                                                                                                                                                                                               23-MAY-2002.
                                                                                                                                   Forssmann W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (IOWA ) UNIV IOWA RES FOUND
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                                                                                                                                                                                                                                                                                                                                                                                                                 beta-defensin-3 derivative #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27 TLOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          39;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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                                                    beta-defensin 3, useful f
and tumors, also related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tack B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                    Kluever E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61.6%; Score 220; DB 5; 100.0%; Pred. No. 1.4e-19;
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                                                                                                                                    Conejo-Garcia J,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                    for treating of nucleic acid
                                                                                                                                      Adermann
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    39
                                                                preventing microbial
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                                                                                                                                      Bals
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                                                                                                                                                                                                                                                                                                                                                                         tract;
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The present invention relates to human beta-defensin-3 (hBD-3) and

Sequence 35 AA;

Claim 2; Page 23; 36pp; German.

infection

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RESULT 15
ABR43502
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                                              ABR43496 to ABR43577 represent beta-defensin antimicrobial peptides (1). (1) have antibacterial activity and can be used in vaccines, and in gene therapy. (1) can be used for preventing microbial growth, for treating infections (e.g. pulmonary infections), for reducing resistance to antimicrobials and antibiotics, and for inhibiting multidrug resistant bacteria. The antimicrobial peptides may be included in food preparations, pharmaceutical preparations, medicinal and pharmaceutical products, coemetic products, hydienic products, cleaning products and cleaning agents, as well as to any material to which the peptides could be sprayed on or adhered to where inhibition of microbial growth on such material is desired. The antimicrobial peptides and nucleic acids encoding them may be used in gene therapy. ABR45578 to ABR43610 represent human beta-defensin peptides given in an example from the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             derivatives. The peptide, its coding sequence and vectors containing the coding sequence are useful in (gene) therapy and diagnosis, especially for preventing or treating a wide range of microbial infections (particularly Burkholderia cepacia and Pseudomonas aeruginosa in the respiratory tract, especially in cases of cystic fibrosis, and Helicobacter pylori, also inflammatory diseases of the gastrointestinal and urogenital tracts, sepsis and yeast infections), and for inducing apoptosis for treating malignant melanoma and tumours. The present sequence is a derivative of human BD-3
                                                                                                                                                                                                                                                                                                                                                  New antimicrobial peptides, beta-defensin, useful formicrobial growth, for treating pulmonary infections, resistance to antimicrobials and antibiotics, and formultidrug resistant bacteria.
                                                                                                                                                                                                                                                                                                            Claim 1; Page 78; 125pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-SEP-2002; 2002WO-US030106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Beta-defensin; antimicrobial; antibacterial; vaccine; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABR43502;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABR43502 standard; peptide; 35 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-354585/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mccray PB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-SEP-2001; 2001US-0323991P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003024992-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection; antibiotic; chromosome 8p23-p22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human beta-defensin peptide DEFB3 SEQ ID NO:7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-JUL-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28 LOKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 LOKYYCKVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schutte BC,
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Pred. No. 5.
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                                                                                                                                                                                                                                                                                                                                                                                         useful for preventing nfections, for reducing
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Query Match

Best Local Similarity 100.0%, Pred. No. 2.6e-17;

Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Matches 0; Mismatches 0; Indels 0; Gaps 0;

Matches 0; Mismatches 0; Indels 0; Gaps 0;

Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Result
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Maximum DB seq length: 200000000
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Perfect score:
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    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein search, using sw model
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193.779 Million cell updates/sec
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1: uniprot_sprot:*
2: uniprot_trembl:*
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    GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd
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                    BD02_RAT
BD04_MOUSE
Q7TNV9
Q7P1L5
YFMN BACSU
Q8R997
Q91VD6
Q6XLU6
AAR26965
Q75YP3
Q75YP3
Q75Z22
BAC99163
BAC99169
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BAC99292
Q76C85
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BD03 MOUSE
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Q9epv9 mus musculu
P83943 chinchilla
Q91v82 mus musculu
Q8r556 mus musculu
Q8r556 mus musculu
Q8r597 mat musculu
Q7tnv9 mus musculu
Q75yp3 nesiohelix
Q75z16 euhadra lat
Q75z12 euhadra lat
D75z22 euhadra lat
Bac99163 euhadra l
Bac99169 euhadra l
Bac99169 euhadra l
Bac99169 human adeno
Q76c85 human adeno
Q76e14 human adeno
Q77v93 human adeno
Q7tbg8 human adeno
Q80iv6 human adeno
Q80iv6 human adeno
                                                                                                                                                                                                                                                       Q8r997 thermoanaer
Q91vd6 mus musculu
Q6xlu6 feldmannia
Aar26965 feldmanni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P81534 homo sapien
Q7pck4 papio anubi
Q95jd2 pan troglod
Q6gc68 sus scrofa
Aar88759 sus scrof
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Q92ri2 rhizobium	Q9cde0 mycobacteri	Q7qx80 giardia l	Q12408 saccharomyc	Aah69144 homo sapi	P01178 homo sapien	Cae46051 homo sapi	Q6mzil homo sapien	P25923 catharanthu	Bac87855 human ade	Bac82701 human ade	Q9jfm5 human adenc	Q9jfm2 human adenc	Q9jfl9 human adenc

ALIGNMENTS

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                                                                     Query Match
Best Local
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EMBL; AF295370; AAG02237.1; -.
EMBL; AF217245; AAF73853.1; -.
EMBL; AB037972; BAB40572.1; -.
EMBL; AB037972; BAB40572.1; -.
EMBL; AF301470; AAG22030.1; -.
EMBL; AF301470; AAG22030.1; -.
EMBL; AF516673; AAM62424.1; -.
PDB; 1KJ6; NNR; A=32-66.
PDB; 1KJ6; NNR; A=32-66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=21864161; PubMed=11741980; DOI=10.1074/jbc.M108830200; Schibli D.J., Hunter H.N., Aseyev V., Starner T.D., Wiencek J.M., McCray P.B. Jr., Tack B.F., Vogel H.J.; The solution structures of the human beta-defensins lead to a better understanding of the potent bactericidal activity of HBD3 against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chen S., He F., Li R., "Cloning and expression submitted (MAY-2002) to
                                                                                                                STRAND
SEQUENCE
                                                                                                                                                                                                                                                DISULFID DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    StaphyLococcus aureus.";
J. Biol. Chem. 277:8279-8289(2002).
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                                                                                                                                                          STRAND
TURN
                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                   GO; GO:0005576; C:extracellular; NAS.
GO; GO:0006965; P:anti-Gram-positive bacterial polypeptide in.
                                                                                                                                                                                                                                                                                                                        Pfam; PF00711; Defensin
                                                                                                                                              STRAND
                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                          3D-structure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: Exhibits antimicrobial activity against Gram-positive bacteria S. aureus and S. pyogenes, Gram-negative bacteria P. aeruginosa and E. coli and the yeast C. albicans. Kills multiresistant S. aureus and vancomycin-resistent E. faecium. No significant hemolytic activity was observed.

SUBCELIULAR LOCATION: Secreted.

TISSUE SPECIFICITY: Highly expressed in skin and tonsils, and to lesser extent in traches, uterus, kidney, thymus, adenoid, phary and tonque. Low expression in salivary gland, bone marrow, colon, stomach, polyp and larynx. No expression in small intestine. INDUCTION: By infection of bacteria and by interferon gamma. MASS SPECTROMETRY: MW=5154.59; METHOD=Electrospray; RANGE=23-67;
                                                                                                                                                                                                                                                                                                                                                  GO:0006965;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: Belongs to the beta-defensin family.
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9
                                                                       Similarity
FROM N.A.
                                                                                                                                                                                                                                                                                                       IPR001855; Defensin_beta.
0711; Defensin_beta; 1.
ure; Antibictic; Direct protein sequencing; Signal.
                                                          Conservative
                                                                                                                                                                                                     224442
                                                                                                                 7697 MW;
                                                                                                                                                          100.0%;
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                                                       Score 65; DB
Pred. No. 2.3
D; Mismatches
                                                                                                                 54266DE1C90D4B65 CRC64;
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                                                                                   DB 1;
                                                                       3e-56;
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                                                          Indels
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01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
DEFB103-like protein (Fragment).
Pagio anubis (Olive baboon).
Eukaryota, Mecazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
PANTR
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29-MAR-2004 (Rel. 43, Created)
29-MAR-2004 (Rel. 43, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beta-defensin 103A
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Submitted (AUG-2002) to the RMBL/GenBank/DDBJ databases.
Submitted (AUG-2002) to the RMBL/GenBank/DDBJ third party annotation (TPA) entry.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Semple C.A., Rolfe M., Dorin J.R.; "Duplication and selection in the evolution of primate beta-defensing the seminate beta-defensing the seminate beta-defensing the seminate beta-defension of the seminate beta-defension of primate beta-defension of the seminate beta-defension o
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                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pan troglodytes (Chimpanzee).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=DEFB103A; Synonyms=DEFB103, DEFB3;
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GO:0005576; C:extracellular; IEA.
GO:000652; P:defense response; IEA.
GO:0009513; P:response to pest/pathogen/parasite; IEA
erPro; IPR001855; Defensin_beta.
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A precursor (Beta-defensin
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Pfam; PF00711; Defensin_beta; 1.
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Submitted (NOV-2003) to the EMBL/GenBank/DDBJ
EMBL; AY460575; AAR88759-1;
SEQUENCE 67 AA; 7790 MW; 6BC28264846572AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sus scrofa (Pig).
Eukaryota; Metazoa;
Mammalia; Eutheria;
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Sus scrofa (Pig).

Bukaryota; Metazoa; Chordata; Craniata;

Mammalia; Eutheria; Cetartiodactyla; Sui

NCBI TaxID=9823;

[1]
                                                                                                              AAR88759 PRELIMINARY;
AAR88759;
02-MAR-2004 (TrEMBLrel. 27,
02-MAR-2004 (TrEMBLrel. 27,
02-MAR-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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Cetartiodactyla; Suina; Suidae;
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Submitted (NOV-2003) to the EMBL/GenBank/DDBJ
EMBL; AY460575; AAR88759.1; -.
SEQUENCE 67 AA; 7790 MW; 6BC28264846572AC
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SEQUENCE FROM N.A., FULLUIS, FULLUIS;
SEQUENCE FROM N.A., FULLUIS;
SEQUENC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=C57BL/6, 129/SvJ, and FVB; TISSUE=Lung; MEDLINE=20517883; PubMed=10922379; Jia H.P., Wowk S.A., Schutte B.C., Lee S.K., V Bevins C.L., McCray P.B. Jr.;
                                                                                                                                                                                                             entities re
or send an
                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restruce by non-profit institutions as long as its content use by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Mouse beta-defensin 3 is an inducible in the epithelia of multiple organs."; Infect. Immun. 67:3542-3547(1999).
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Mammalia; Eutheria; Rodentia;
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                                                       EMBL; AF093245; AAD29573.1;
EMBL; AF092929; AAD29572.1;
HSSP; O15263; 1E4Q.
MGD; MGI:1351612; Defb3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biol. Chem. 275:33314-33320(2000).
FUNCTION: Antimicrobial activity
E.coli and P.aeruginosa.
SUBCELLULAR LOCATION: Secreted.
TISSUE SPECIFICITY: Highest expre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INDUCTION: BY SIMILARITY: Be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE SPECIFICITY: Highest expression in salivary glands, epididymis, ovary and pancreas and to a lesser extent in l liver and brain. Low or no expression in skeletal muscle a
                                                                                                                                                                                                                                                                                                                                                                                                                                                               subfamily.
   MGI:1351612; Defb3.
rPro; IPR001855; Defensin_beta.
rPro; IPR006080; Defensin_mammal
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an email to license@isb-sib.ch).
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elongs to the beta-defensin
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Sciurognathi; Muridae;
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; Murinae; Mus
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SEQUENCE 6
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01-MAR-2001
                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                     Q9EPV9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00048; DEFSN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00711; Defensin
                                                                Beta-defensin i precursor (cBD-1).
Name=DEFB1; Synonyms=BD1;
Chinchilla lanigera (Chinchilla).
Bukaryota; Metazoa; Chordata; Crani
Mammalia; Eutheria; Rodentia; Hysty
                                                                                                                                                                                                                                                                                                                                        Name=Defb5
                                                                                                                                                                                                                                                                                                                                                 Defensin
                                                                                                      05-JUL-2004 (Rel. 44, Created)
05-JUL-2004 (Rel. 44, Last sequence up
05-JUL-2004 (Rel. 44, Last annotation
                                                                                                                                              CHILA
                                                                                                                                                                                                                                                                                                         NCBI_TaxID=10090;
TISSUE=Tongue, and Trachea;
PubMedd=14996845; DOI=10.1074/jbc.M400499200;
Harris R.H., Wilk D., Bevins C.L., Munson R.S. of "Identification and characterization of mucosal
                               SPECTROMETRY.
                                    SEQUENCE
                                                            Chinchill
                                                  NCBI_TaxID=34839;
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larity 100.0%
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Rodentia;
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9D59BC8AD16EA330
                                                                                                                                                                                                                                                             P., Presnell S., (G.; EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beta-defensin 3
By similarity.
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Potential
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                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; l
Sciurognathi; Muridae;
                                                                  Craniata; Vertebrata; Euteleostomi; Hystricognathi; Chinchillidae;
                                                                                                                                        PRT;
                                      TISSUE
                                                                                                                                                                                                                                                                            leman B.E.,
Presnell (
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annotation update)
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                                      SPECIFICITY,
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Submitted (APR-2001) to the E
EMBL; AJ300674; CAC44635.1; -
EMBL; AJ300673; CAC44634.1; -
EMBL; AJ300673; CAC4654.1; -
PDB; 154R; NMR; A=26-60.
MGD; MG1.2654206; DefbB.
GO; GO:0042742; P:defense res
                                                                                                                                                                                             SEQUENCE FROM N.A.
TISSUB-Lung;
Conejo-Garcia J.R., Nehls
Kluever E., Liepke C., Ad
Submitted (JUL-2001) to t
                                                                                                                                                                                                                                                                                                                                                                                                                         Q91V82;
Q91V82;
Q1-DEC-2001
01-DEC-2001
05-JUL-2004
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DISULFID
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      between the Swiss Institute of Bioinformat, the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMART; SM00048; DEFSN; 1.
Antibiotic; Fungicide; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AY128668; AAM97293.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                         01-DEC-2001 (TYEMBLrel. 19, Created)
01-DEC-2001 (TYEMBLrel. 19, Last sequence update)
05-UIL-2004 (TYEMBLrel. 27, Last annotation update)
Beta-defensin 8 (Beta-defensin 6).
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SMART; SM00048; DEFSN;
                                                                                                                                   SEQUENCE FRO
TISSUE=Lung;
                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                          Name=Defb8;
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MASS SPECTROMETRY:
NOTE=Ref.1.
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TISSUE SPECIFICITY: Highly expressed in mucosa and skin, and to a lower extent:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: Belongs to the beta-defensin
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9; Conserve
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7 AA;
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                                                                                                                                                                                             C., Adermann
C. to the EMBL
                                                                                                                                                                                                                                                                                                                                   Chordata;
Rodentia;
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    response
                                                                                                                                                                                               .C., Wattler S., Ba
mann K., Forssmann
EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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0; Mismatches
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By similarity:
By similarity.
30A611CDCCD5BA8D
                                                                                                    EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata;
Sciurognathi; Muridae;
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      bacteria;
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ng as its content is in
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in the Eustachian tube,
                                                                                                                                                                                                                                        Bals R.,
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Murinae; Mus
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RESULT 11
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ID Q8R55
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MEDLINE=99386883; PubMed=10456937; Jia H.P., Mills J.N., Barahmand-Pour F., Ni Mallampali R.K., Mang G., Wiles K., Tack B. McCray P.B. Jr.; "Molecular cloning and characterization of homologues of human beta-defensins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
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                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; MCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Beta-defensin 2 precursor (BD-2) (RBD-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=C5781/6J;
MEDLINE=22213784; PubMed=12226710;
Morrison G.M., Rolfe M., Kilanowski F.M.,
                                                                                                                                                                                                     STRAIN=Wistar;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BD02_RAT
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Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=Defb2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             088514;
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Pfam; PF00711; Defensin_beta; 1.
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8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12.3%; Score 8; DB ilarity 100.0%; Pred. No. 4. Conservative 0; Mismatches
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AA; 6760 MW;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
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                                                                                             r F., Nishimura
Tack B.F., Bevi
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                                                                                                    Bevins C.L.,
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Best Local
STRAIN=C57BL/6J; TISSUE=Tongue;

MEDLINE=2235463; Pubmed=12466851; DOI=10.1038/nature01266;

Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,

Nikaido I., Osato N., Salto R., Suzuki H., Yamanaka I., Kiyosawa

Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobor

Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,

Schriml L.M., Kanapin A., Matsuda H., Batalov S., Belsel K.W.,

Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousin

Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
                                                                                                                                                                                                                                                                                                                                                                  16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
05-UTL-2004 (Rel. 44, Last annotation update)
Beta-defensin 4 precursor (BD-4) (mBD-4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this scattement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                  SEQUENCE FROM N.A., TISSUE SPECIFICITY, AND VASTRAINE-C57BL/6, 129/SvJ, and TVB; TISSUE-Lung; MEDLINE-20517883; PubMed=10922379;
                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                    P82019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001855; Defe
InterPro; IPR006080; Defe
Pfam; PF00711; Defensin b
SMART; SM00048; DEFSN; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Infect. Immun. 67:4827-4833(1999).
-!- FUNCTION: Has bactericidal activity (By similarity).
-!- SUBCELJULAR LOCATION: Secreted (Potential).
-!- TISSUE SPECIFICITY: Highly expressed in lung.
-!- SIMILARITY: Belongs to the beta-defensin family. LAP/TAP
                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                             Jia H.P., Wowk S.A., Schutte B.C., Lee S.K., Vivado A., Tack B.F., Bevins C.L., McCray P.B. Jr.;
"A novel murine beta-defensin expressed in tongue, esophagus, and
                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                                                                                                                                             Name=Defb4; Synonyms=Bdef4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       BD04 MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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RGD; 619944; Defb2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AF068861; AAC28072.1; -.
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                                                                                                                                                                   Biol.
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8; Conserv
                                                                                                                                                                   Chem.
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AA;
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                                                                                                                                                                                                                                                                                                                                               (Mouse)
                                                                                                                                                                 275:33314-33320(2000).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6946 MW;
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sin_beta; 1.
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Beta-defensin 2.

By similarity.

By similarity.

By similarity.
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                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mammal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1;
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                                            ...yosawa H.,
, Gojobori T.,
h J.,
                 Cousins
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L outstation -
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RESULT 13
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A Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
A Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
A Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
A Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
A Magashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
A Negashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
A Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
A Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
A Nagashima T., Namata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
A Nagashima T., Namata K., Setou M., Shimada K.,
A Namata T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
A Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
A Sandalin A., Schneider C., Semple C.A., Setou M., Shimada K.,
A Sandalin A., Schneider C., Semple C.A., Setou M., Shimada K.,
A Wilming L.G., Wynshaw-Boris A., Yanagiswa M., Yang I., Yang I.,
A Wilming L.G., Wynshaw-Boris A., Yanagiswa M., Yang I., Hayatsu N.,
A Wilming L.G., Wynshaw-Boris A., Yanagiswa M., Sakazume N., Sato K.,
A Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
A Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
A Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
A Nayashizaki Y.,
A Nay
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                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 8
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                                   Q7TNV9
Q7TNV9;
01-OCT-2003
01-OCT-2003
01-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
DISULFID
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VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Birney E., Hayashizaki Y.;
"Analysis of the mouse transcriptome 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
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EMBL; AF287475; AAG205197.1; -.
EMBL; AF288371; AAG10514.1; -.
EMBL; AK009306; BAB26207.1; -.
EMBL; AK009061; BAB26051.1; -.
                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antibiotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR001855; Defensin_beta.
InterPro; IPR006080; Defensin_mammal.
Pfam; PF00711; Defensin_beta; 1.
  Beta defensin
Name=Defb14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: Has bactericidal activity (By similarity)
SUBCELLULAR LOCATION: Secreted (By similarity)
TISSUE SPECIFICITY: Tongue, esophagus and trachea.
SIMILARITY: Belongs to the beta-defensin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; AK009061; BAB2605
; O15263; 1E4Q.
MGI:1927667; Defb4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SM00048;
                                                                                                                                                                                                                                                                                             Similarity
8; Conserv
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3 (TrEMBLrel.
4 (TrEMBLrel.
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ilarity 100.0%;
Conservative (
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                                                                                                                   PRELIMINARY;
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8 5 5 5
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By similarity.
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L -> P (in strain |
4C7692ED589EE289 C)
                                       Created)
Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                 0
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CRC64;
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                                                                                                                                                                                                                                                                                                                                    Length 63;
                                                                                                                                                                                                                                                                                                   Indels
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RA Vasconcelos A.T.R., de Almeida D.F., Hungria M., Guimaraes C.T.,
RA Antonio R.V., Almeida F.C., de Almeida L.G.P., de Almeida R.
RA Antonio R.V., Almeida F.C., de Almeida L.G.P., de Almeida R.
RA Astolfi-Filho S., Azevedo V., Baptista A.J., Bataus L.A.M.,
RA Astolfi-Filho S., Azevedo V., Baptista A.J., Bataus L.A.M.,
RA Astolfi-Filho S., Delo A., van den Berg C., Bogo M., Bonatto S.,
RA Barista J.S., Belo A., van den Berg C., Bogo M., Bonatto S.,
RA Carvalho C.M.B., Cardoso D.D.P., Carmeiro N.P., Carraro D.M.,
RA Carvalho C.M.B., Cascardo J.C.M., Cavada B.S., Chueire L.M.O.,
RA Carvalho C.M.B., Cascardo J.C.M., Cavada B.S., Chueire L.M.O.,
RA Carvalho C.M.B., Farias I.P., Felipe M.S.S., Ferrari L.P., Ferro J.A.,
RA Ferro M.I.T., Franco G.R., Freitas N.S., Furlan L.R.,
RA Gazzinelli R.T., Gomes E.A., Goncalves P.R., Grangeiro T.B.,
RA Grattapaglia D., Grisard E.C., Hamna E.S., Jardim S.N., Laurino J.,
RA Grattapaglia D., Grisard E.C., Hamna E.S., Jardim S.N., Laurino J.,
RA Madeira H.M.F., Manfilo G.P., Marahhao A.O., Martins W.S.,
RA Madeira H.M.F., Monfilo G.P., Marahao A.O., Martins W.S.,
RA Mascimento F.F., Nicolas M.F., Oliveira J.G., Oliveira S.C.,
RA Paixao R.F.C., Parente J.A., Pedrosa F.O., Pena S.D.J., Pereira J.O.,
RA Paixao R.F.C., Parente J.A., Pedrosa F.O., Pena S.D.J., Petrich D.P.,
RA Santos E.B.P., Santos F.R., Schneider M.P.C., Seuanez H.N.,
Souza E.M., Soares R.B.A., Schneidel M., Teixeira S.R., Urmenyi T.,
RA Vettore A., Wassem R., Zaha A., Simpson A.J.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 8
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01-MAR-2004
01-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JUL-2003) to the EMBL/GenBank/DDBJ database EMBL, AJ578468; CAE17665.2; -
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005952; P:defense response; IEA.
GO; GO:0009613; P:response to pest/pathogen/parasite;
GO; GO:0009613; P:response to pest/pathogen/parasite;
GO; GO:0011; Defensin_beta.
Pfam; PF00711; Defensin_beta; 1.
SEQUENCE 67 AA; 7718 NW; EEFF0D93ADF17452 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q7P1L5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=C57B1/6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=C57B1/6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=ATCC 12472 / DSM 30191;
MEDLINE=22882880; PubMed=14500782;
Vasconcelos A.T.R., de Almeida D.F.
Vasconcelos A.T.R., de Almeida D.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bacteria, Proteobacteria; Betaproteobacteria; Neisseriales;
Neisseriaceae; Chromobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical protein.
OrderedLocusNames=CV0198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chromobacterium violaceum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36
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8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RGGRCAVL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
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                                                RX. MEDLINE=98044033; PubMed=9384377; DOI=10.1038/36786;
RRA Kunst F., Ogasawara N., Moszer I., Albertini A.M., Alloni G.,
RRA Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S.,
RRA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C.,
RRA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C.,
RRA Borriss R., Boursier L., Brans A., Braun M., Capuano V., Carter N.M.,
RRA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RRA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RRA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RRA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RRA Choi S.K., Codani J.J., Fabret C., Ferrari E., Foulger D.,
RRA Fritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N.,
RRA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RRA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RRA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RRA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RRA Ghim S.Y., Glaser P., Woshe S., Hullo M.F., Itaya M.,
RRA Ghim S.Y., Glaser P., Koetter P., Koningstein G., Krogh S.,
RRA Kumano M., Kurita K., Lapidus A., Lardinois S., Lauber J.,
RRA Kumano M., Kurita K., Lapidus A., Lardinois S., Lauber J.,
RRA Kumano M., Kurita K., Lapidus A., Lardinois S., Lauber J.,
RRA Medigue C., Medina N., Mellado R.P., Mizuno M., Moestl D., Nakai S.,
RRA Noback M., Noone D., O'Reilly M., Dogawa K., Ogiwara A., Oudega B.,
RRA Rose M., Sadaie Y., Sato T., Scanlan E., Schleich S., Schroeter R.,
RRA Rose M., Sadaie Y., Sato T., Schowka A., Seror S.J., Seror P.,
RRA Rose M., Sadaie Y., Sato T., Sakowka A., Seror S.J., Seror P.,
RRA Rose M., Sadaie Y., Sato T., Takasi T., Takasi T., Takashashi H.,
RRA Pognoni A., Tosato V., Uchiyama S., Vandenbol M., Vannier F.,
RRA Yasumoto K., Vata K., Yoshida K., Yos
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Matches 8
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10-OCT-2003 (Rel. 42, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Hypothetical protein yfmN.
Name=yfmN; OrderedLocusNames=BSU07410;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          O06472;
10-OCT-2003
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                     Nature 390:249-256(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=97286547; PubMed=9141694; Yamamoto H., Uchiyama S., Nugroho F.A., Sekiguchi J.; Yamamoto H., Uchiyama S., Nugroho F.A., Sekiguchi J.; "A 23.4 kb segment at the 69 degrees-70 degrees region of the Bacillus subtilis genome.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacillus subtilis.
Bacteria; Firmicut
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100.0%; Pred. No.
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EA9B809966AA9ACF CRC64;
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EMBL; D86418; BAA20103.1; --
EMBL; Z99107; CAB12560.1; --
EMBL; E69813; E69813.
SubtiList; BG12965; yfmN.
                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                             Complete proteome; Hypothetical protein. SEQUENCE 51 AA; 5924 MW; 6DB6A157B1B
                             43 LSCLPKE
44 LSCLPKE
                                                                                Similarity
                                                              Conservative
                             49
                                                                              100.0%;
                                                                                               10.8%;
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Pred. No.
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Search completed: October 13, 2004, 15:00:26
Job time: 195 secs

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Minimum DB seq length: 0
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(without alignments)
160.361 Million cell updates/sec
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Pred. No. and is No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, s derived by analysis of the total score distribution.

SUMMARIES

Result

cyc02 protein precursor - Madagascar periwinkle)
C;Species: Catharanthus roseus (Madagascar periwinkle)
C;Species: Catharanthus roseus (Madagascar periwinkle)
C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 09-Jul-2004
C;Accession: J00877
R;Kodamma, H.; Ito, M.; Hattori, T.; Nakamura, K.; Komamine, A.
submitted to JIPID, February 1991
A;Decessiption: Isolation of genes that are preferrentially expressed at the G1/S bounda
A;Reference number: J00877
A;Accession: J00877

A;Molecule type: mRNA

RESULT 2 JQ0877

ALIGNMENTS

E69813

R;Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berte C.; Bron, S.; Bruillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Ch. A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, S. Nature 390, 249-256, 1997

A;Authors: Soulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galle iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.; Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois A;Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mauee Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetell Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Saddie, Y.; Sato, T.; Scanlon A;Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sskowska, A.; Sero akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama T.; Winters, P.; Wipat, A.; Zumstein, E.; Yoshikawa, H.; Danchin, A.; A;Reference number: A69580; MUID:98044033; PMID:9384377

A;Accession: E69813

a. Stering realiminary. Mulder acid accessor of the Gram-positive bacterium Bacillus subtilis. A,Status: preliminary; nucleic acid sequence not shown; translation A,Molecule type: DNA A,Residues: 1-51 <KUN> hypothetical protein yfmN - Bacillus subtilis C;Species: Bacillus subtilis C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004 밁 Ś A;Gene: A;Cross-references: UNIPROT:006472; A;Experimental source: strain 168 Query Match Best Local S Matches 7 Genetics yfmN 44 LSCLPKE 50 43 LSCLPKE 49 l Similarity 7; Conserva 10.8%; Score 7; DB ilarity 100.0%; Pred. No. 3.4 Conservative 0; Mismatches GB:Z99107; GB:Z99108; GB:AL009126; NID:g2633055; PI DB 2; 0, Length 51; Indels 0; not Gaps shown 0

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C;Species: Homo sapiens (man)

C;Date: 24-Apr-1984 #sequence revision 30-Sep-1987 #text_change 09-Jul-2004
C;Accession: A94676; A91352; A92229; A93948; A91292; A37402; I84607; A01440;
R;Sausville, E; Carney, D.; Battey, J.
J. Biol. Chem. 260, 10236-10241, 1985
A;Title: The human vasopressin gene is linked to the oxytocin gene and is sel A;Reference number: A94676; MUID:85261445; PMID:2991279
A;Accession: A94676; MUID:85261445; PMID:2991279
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A;Gene: CycO2
F;1-23/Domain: signal sequence #status p
F:74-101/Product: CycO2 protein #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oxytocin / neurophysin 1 precursor [validated] N;Alternate names: neurophysin 1; prepro-OT-NPI N;Contains: neurophysin 1; oxytocin
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A;Cross-references: UNI
A;Experimental source:
                                                                                                                                              A;Molecule type: protein
A;Residues: 32-99,'AA',102-123,'L',125 <SCH>
R;Ivell, R.; Furuya, K.; Brackmann, B.; Dawood, Y.; Khan-D
Endocrinology 127, 2990-2996, 1990
A;Title: Expression of the oxytocin and vasopressin genes
A;Reference number: A37402; MUID:91065270; PMID:2249637
A;Accession: A37402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-99,101-125 <SAN>
A; Residues: 1-99,101-125 <SAN>
A; Coose-references: UNIPROT: P01178; GB:M111
R; Mohr, E.; Hillers, M.; Ivell, R.; Haulica
FEBS Lett. 193, 12-16, 1985
A; Title: Expression of the vasopressin and
A; Reference number: A91352; MUID: 86056283;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R,Light, A., du Vigneaud, V.
Proc. Soc. Exp. Biol. Med. 98, 692-
A,Title: On the nature of oxytocin
A,Reference number: A94229
A,Accession: A94229
                                                                                                                                                                                                                                                                                                                               A;Molecule type: protein
A;Residues: 32-125 <CHA>,
A;Residues: 32-125 <CHA>,
R;Schlesinger, D.H.; Audhya, T.K.
FEBS Lett. 128, 325-328, 1981
A;Title: A comparative study of mammalian neurophysin protein sequences.
A;Reference number: A91292; MUID:81261248; PMID:7262323
A;Accession: A91292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: protein
A; Residues: 20-28 < LIS;
R; Chauvet, M.T.; Hurpet, D.; Chauvet, J.; Acher, R.
R; Chauvet, M.T.; Hurpet, D.; Chauvet, J.; Acher, R.
Proc. Natl. Acad. Sci. U.S.A. 80, 2839-2843, 1983
A; Title: Identification of human neurophysins: complete
A; Reference number: 833948, MUID:83221497; PMID:6574452
A; Accession: A33948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 80-125 <MOH>
A;Cross-references: GB:X03173; NID:g35170; PIDN:CAA26936.1;
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;Residues: 25-93,'G',95-110 <IVE>;Cross-references: GB:M62611; NID:g189416; PIDN:AAA59979.1; PID:g189417;Cross-references: GB:M62611; NID:g189416; PIDN:AAA59979.1; PID:g189417;Rehbein, M.; Hillers, M.; Mohr, E.; Ivell, R.; Morley, S.; Schmale, H.; Richter, iol. Chem. Hoppe-Seyler 367, 695-704, 1986;Title: The neurohypophyseal hormones vasopressin and oxytocin. Precursor structu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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Residues: 25-93,'G',
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ce: strain B, cell
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          structure,
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          Ϋ́S
                                                         hypothetical protein - Mycobacterium leprae C;Species: Mycobacterium leprae C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 C;Accession: T10017 #S;Cole, S.T.
                                                                                                                                                                                         RESULT
        R;Cole, S.T. submitted to the EMBL Data Library, August 1997 A;Reference number: Z16916
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xytocin
C;Superfamily: oxytocin-neurophysin
C;Superfamily: oxytocin-neurophysin
C;Keywords: amidated carboxyl end; hormone; lactation; posterior
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-28/product: oxytocin #status experimental <ONN>
F;22-125/Product: neurophysin 1 #status experimental <NF1>
F;22-125/Disulfide bonds: #status experimental
F;28/Modified site: amidated carboxyl end (Gly) (amide in mature
F;41-85,44-58,52-75,59-65,92-104,98-116,105-110/Disulfide bonds:
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A;Cross-references: GDB:120253; OMIM:167050
A;Map position: 20p13-20p13
A;Introns: 40/3; 108/1
C;Function:
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A;Accession: I84607
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                     A; MCLCEBELL TYPE: DNA
A; Molecule type: DNA
A; Residues: 1-173 < PAU>
A; Cross references: UNIPROT: Q12408;
A; Cross reference: strain S288C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                probable membrane protein YDL046w - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein D2699
C;Species: Saccharomyces cerevisiae
C;Date: 12-Jul-1996 #sequence_revision 12-Jul-1996 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                                                                A; Reference number: S67560
A; Accession: S67579
                                                                                                                                                                                                                                                                                                                                                                                                                         R; Paulin, L.; Saren, A.M
submitted to the Protein
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                                                                                                                                                                                                                                                                 A;Gene: MIPS:YDL046w
                                                                                                                                                                                                                                                                                                   A; Experimental source: strain
                                                                                                                                                          ;8-24/Domain: transmembrane #status predicted
                                                                                                                                                                                                ;Superfamily: Saccharomyces cerevisiae
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Best Local
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                                                                               Matches
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Best Local &
                                                                                                                                                                               Keywords: transmembrane
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7; Conserve
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100.0%; Pred. No.
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                                                                                                                          Score 7;
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                                                                                                      Pred.
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                                                                                                      No.
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#text_change 09-Jul-2004

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A;Cross-referent
A;Experimental (
C;Genetics:
A;Gene: TC0492
C;Superfamily:
                                                                                                      A;Molecule type: DNA
A;Residues: 1-258 <STO>
A;Cross-references: UNIPROT:Q9HY97; GB:AE004771; GB:AE004091; NID:g9949650; PIDN:AAG0690
A;Experimental source: strain PAO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, J. Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sequence of Fseudomonas aeruginosa PA01, ar A;Reference number: A82950; MUID:20437337; PMID:10984043
A;Accession: F83207
                                                                                                                                                                                                                                                                                                   B81696
4-hydroxybenzoate octaprenyltransferase TC0492 [imported] - Chlamydia murid G;Species: Chlamydia muridarum, Chlamydia trachomatis MoPn G;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004 C;Accession: B81696
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C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
C;Accession: F83207
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A;Status: preliminary;
A;Molecule type: DNA
A;Residues: 1-201 <COL>
                                                                                                                                                                                                                    C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, Nucleic Acids Res. 28, 1397-1406, 2000
A;Title: Gentome sequences of Chlamydia trachomatis MoPn and A;Reference number: A81500; MUID:20150255; PMID:10684935
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Query Match
Best Local S
Matches 7
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Best Local :
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                                                                                                                                                                                                                                                                      .D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J. son, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.;
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7; Conserva
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Similarity 7; Conserv
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                                                                  4-hydroxybenzoate octaprenyltransferase
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ilarity 100.0%;
Conservative (
10.8%; Score 7; DB (ilarity 100.0%; Pred. No. 14)
Conservative 0; Mismatches
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(MoPn)
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    Chlamydia muridarum

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Larbig,
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Salzberg,
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K.; Lim,
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R/She, Q.; Singh, R.K.; Confalonieri, F.; Zivanovic, Y.; Allard, G.; Awa: Jong, I.; Jeffries, A.C.; Kozera, C.J.; Medina, N.; Peng, X.; Thi-Ngoc, arrett, R.A.; Ragan, M.A.; Sensen, C.W.; Van der Oost, J. submitted to GenBank, April 2001
A; Description: Sulfolobus solfatarious complete genome.
                                                                                  hypothetical protein aq 267 - Aquifex aeolicus C;Species: Aquifex aeolicus C;Space: 08-May-1998 #sequence_revision 08-May-10;Accession: D70324 C;Accession: D70324 R;Deckert, G.; Warren, P.V.; Gaasterland, T.;
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C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 09-Jul-2004
C;Accession: T08985
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A; Residues: 1-312 <BEV>
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C;Superfamily: nickel transport protein YPO2673
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A;Molecule type: DNA
A;Residues: 1-373 <KUR>
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Nature 392, A; Title: The
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A;Accession: B90253
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Matches 7
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Best Local &
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 LFALLFL 23
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353-358, 1
me complete
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Conservative
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100.0%; Pred. No. 17;
tive 0; Mismatches
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100.0%; Pred. No.
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                                                                                                                                                             08-May-1998
                                                                                            T.; Young,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NID: g13814199;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSPDB:GN00062; ATSP:F6G3.120
e F6G3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 312
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                                                                                                                                                             #text_change 09-Jul-2004
                                                                                                   W.G.;
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                                                                                                      Lenox,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sulfolobus solfataricus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIDN:AAK41281.1; GSPDB:
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hi-Ngoc, H.P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                   A.L.;
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                                                                                                      Graham,
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genome

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hyperthermophilic bacterium

Aquifex

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probable nucellin [imported] - Arabidopsis thaliana ()Species: Arabidopsis thaliana (mouse-ear cress) ()Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004 ()Accession: F96505 ()Access
   A;Cross-references: UNIPROT:Q9C6Y5; GB:AE005173; NID:g11120822; PIDN:AAG31001.1; GSPDB:C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;
Gene: all4110 C;
Superfamily: magnesium and cobalt transport protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypothetical protein all4110 [imported] - Nostoc sp. (strain PCC 7120) C;Species: Nostoc sp. SPCC 7120 C;Species: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120 A;Note: Nostoc sp. strain PCC 7120 is a synonym of Heat-change 09-Jul-2004 C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
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A;Cross-references: UNIPROT:066624; GB:AE000681; NID:92982963; PIDN:AAC06585.1; PID:9298
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A;Experimental source: strain PCC 7120
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A; Residues: 1-380 < KUR>
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A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium Ana A;Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AG2319
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R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguc
Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata,
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                                                                                                     A; Molecule type: DNA
                                                                                                                                            A; Status: preliminary
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Best Local
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                                                                          1-405 <STO>
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100.0%; Pred. No.
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100.0%; Pred. N
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A;Introns: 132/3; 168/2; 220/3; 407/3 C;Superfamily: glucagon receptor
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A; Residues: 1-485 < SVO>
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                                                                          C;Genetics:
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A;Experimental source: liver
R;Jelinek, L.J.; Lok, S.; Rosenberg, G.B.; Smith, R.A.; Grant, F.J.; Biggs, S.; Be
R;Jelinek, L.J.; Lok, S.; Rosenberg, G.B.; Smith, R.A.; Grant, F.J.; Biggs, S.; Be
R;Jelinek, L.J.; Lok, S.; Rosenberg, G.B.; Smith, R.A.; Grant, F.J.; Biggs, S.; Be
Science 259, 1614-1616, 1993
Science 259, 1614-1616, 1993
A;Title: Expression cloning and signaling properties of the rat glucagon receptor.
A;Reference number: A46211, MUID:93206096; PMID:8384375
A;Accession: A46211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Svoboda, M.; Ciccarelli, E.; Tastenoy, M.; Cauvin, A.; Stievenart, M.; Charistophe, J. Biochem. Biophys. Res. Commun. 191, 479-486, 1993
A;Title: Small introns in a hepatic cDNA encoding a new glucagon-like peptide 1-type re. A;Reference number: JQ1957; MUID:93213282; PMID:8384842
A;Accession: JQ1957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: UNIPROT:Q91224; GB:AE004636; GB:AE004091; NID:g9948093; PIDN:AAG054:A;Experimental source: strain PAO1
C;Genetics:
                               A;Molecule type: mRNA
A;Residues: 1-37,'W',38-215,'W',217-323,'V',325-485 <UEL>
A;Experimental source: liver
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C; Superfamily: hypothetical protein c0103
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Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glucagon receptor - rat
N;Altermate names: GLP-1 receptor homolog, hepatic
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text_change 09-Jul-2004
C;Date: J01957; A46211; $29689
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A,Reference number: A82950; MUID:20437337; PMID:10984043
A,Ancession: B83385
                                                                                                                                       A;Status: preliminary; nucleic acid sequence not shown; not
                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: UNIPROT:P30082; GB:X68692
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;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
;Accession: B83385
sequence extracted from NCBI backbone (NCBIP:127785)
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100.0%; Pred. No.
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100.0%; Pred. No.
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hypothetical protein sl10225 - Synechocystis sp. (strain PCC 6803)
(;Species: Synechocystis sp.
A;Variety: PCC 6803)
A;Variety: PCC 6807
A;Variety: PCC 6807
C;Date: 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004
C;Accession: S74561
C;Accession: S74561
C;Accession: S74561
C;Accession: S, S,; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, N.;
C;Accession: S,; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasuda
D, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasuda
D, Res. 3, 109-136, 1996
A;Title: Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis
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A;Accession: $74561
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-512 <KAN>
A;Residues: 1-512 <KAN>
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Search completed: October 13, 2004, 15:01:12 Job time : 41 secs
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S74561
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: UNIPROT:P72706; EMBL:D90900; GB:AB001339; NID:g1651768; PIDN:BAA167:
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1996
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17 VLSCLPK 23
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Maximum DB seq length: 200000000
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Perfect score:
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162:592 Million cell updates/sec
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Copyright (c) 1993 - 2004 Compugen Ltd.
/ Cgm2 6/ptodata/1/pubpaa/US09A PUBCOMB.pep: *
/ Cgm2 6/ptodata/1/pubpaa/US09B PUBCOMB.pep: *
/ Cgm2 6/ptodata/1/pubpaa/US09B PUBCOMB.pep: *
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/ Cgm2 6/ptodata/1/pubpaa/US10D PUBCOMB.pep: *
/ Cgm2 6/ptodata/1/pubpaa/US10D PUBCOMB.pep: *
/ Cgm2 6/ptodata/1/pubpaa/US10 NEW PUB.pep: *
/ Cgm2 6/ptodata/1/pubpaa/US10 NEW PUB.pep: *
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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60.0	64.6	66.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Query Match
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US-09-872-852-3	US-10-332-765-27	US-09-872-852-4	US-10-409-532-10	US-10-409-366-10	US-10-272-121-10	US-10-091-166B-10	US-09-872-852-2	US-09-917-340-72	US-09-917-340-52	US-10-409-532-2	US-10-409-366-2	US-10-272-121-2	US-10-091-166B-2	ID
Sequence 3, Appli	Sequence 27, Appl	Sequence 4, Appli	Sequence 10, Appl	Sequence 10, Appl	-	Sequence 10, Appl	Sequence 2, Appli	Sequence 72, Appl	Sequence 52, Appl	Sequence 2, Appli	Sequence 2, Appli	Sequence 2, Appli	Sequence 2, Appli	Description

35 53. 47. 7 31 47. 7 31 16 US-10-232-765-1 20 30.8 36 14 US-10-323-765-1 20 30.8 36 14 US-10-991-1668-60 20 30.8 36 14 US-10-409-332-60 20 30.8 37 14 US-10-091-1668-58 20 30.8 37 14 US-10-091-1668-59 20 30.8 37 14 US-10-409-332-59 20 30.8 37 14 US-10-409-332-57 20 30.8 37 14 US-10-409-336-57 20 30.8 38 14 US-10-272-121-56 20 30.8 38 14 US-10-272-121-56 20 30.8 38 14 US-10-272-121-56 20 30.8 38 14 US-10-409-366-57 20 30.8 39 14 US-10-409-332-57 20 30.8 39 14 US-10-272-121-56 20 30.8 39 14 US-10-409-366-54 20 30.8 39 14 US-10-409-366-55 20 30.8 39 14 US-10-409-366-54 20 30.8 39 14 US-10-409-366-55 20 30.8 39 14 US-10-409-532-56 20 30.8 39 14 US-10-409-532-56 20 30.8 39 14 US-10-409-532-56	1 4 7 7 3 1 1 4 US 10 - 272 - 121 - 58 3	-4. υ	44	43	42	41	40	9	38	37	36	S S	34	ω G	32	31	30	29	28	27	26	25 5	24	23	22	21	20	19	18	17	16	15
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ALIGNMENTS

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US-10-091166B-2

Sequence 2, Application US/10091166B

Publication No. US20030143671A1

GEMERAL INFORMATION:

APPLICANT: Adder, David A.

APPLICANT: Holloway, James L.

APPLICANT: Beigel-Orme, Stephanie
APPLICANT: Sheppard, Paul O.

TITLE OF INVENTION : NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44D1

CURRENT FILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-06-10
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR APPLICATION NUMBER: US 60/054,294
PRIOR PILING DATE: 1999-06-25
PRIOR PILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR FILING DATE: 1997-09-10
NUMBER OF SEQ ID NOS: 72
SOFTWARE: FASESEQ for Windows Version 4.0

SEQ ID NO 2
LENGTH: 65
TYPE: PRT
ORGANISM: Homo sapiens

US-10-091-166B-2
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Query Match
100.0%; Score 65; DB 14; Length 65;
Best Local Similarity 100.0%; Pred. No. 8.3e-59;
Matches 65; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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US-10-409-366-2
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PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR FILING DATE: 1999-06-25
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR APPLICATION NUMBER: US 60/064,335
PRIOR APPLICATION NUMBER: US 60/058,335
APPLICANT: Beigel-orme, Stephanie
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/10/409,366
CURRENT FILING DATE: 2003-04-07
PRIOR APPLICATION NUMBER: US/09/636,399A
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/056,335
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR APPLICATION NUMBER: 60/064,294
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Publication No. US20030157638A1
GENERAL INFORMATION:
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SEQ ID NO 2
LENGTH: 65
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APPLICANT: Addler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
APPLICANT: Beigel-Orme, Stephanie
                                                                                                                                                                                                                                                                                                                                Sequence 2, Application US/10409366 Publication No. US20030166912A1
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CURRENT APPLICATION NUMBER: US/10/272,121
CURRENT FILING DATE: 2002-10-15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Adler, David A. APPLICANT: Holloway, Jame
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FILE REFERENCE: 97-44C2

CIURRENT FILING DATE: 2003-04-07

CURRENT FILING DATE: 2003-04-07

PRIOR APPLICATION NUMBER: US/99/636,399A

PRIOR FILING DATE: 2000-08-10

PRIOR FILING DATE: 1997-10-09

PRIOR FILING DATE: 1997-11-05

PRIOR FILING DATE: 1997-11-05

PRIOR FILING DATE: 1998-09-10

PRIOR FILING DATE: 1998-09-10

PRIOR FILING DATE: 1909-136,399

PRIOR FILING DATE: 2000-08-10

NUMBER OF SEQ ID NOS: 72

SOFTWARE: FASTSEQ for Windows Version 3.0

SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 65;
TYPE: PRT;
ORGANISM: Homo sapiens
US-10-409-366-2
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US-10-409-532-2
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PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
SOFTWARE: FASTSEQ for Windows Version
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/10409532
Publication No. US20030166913A1
GENERAL INFORMATION:
APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
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TITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                       Local Similarity
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                                                                                        1 MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
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KCCRR
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                                                                                                                                       100.0%; ilarity 100.0%; Conservative 0
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Pred. No. 8.3e-59;
; Mismatches 0;
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RESULT 5 US-09-917-340-52 ; Sequence 52, Application US/09917340

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FILE REFERENCE: TPLANT-06468
CURRENT APPLICATION NUMBER: US/09/917,340
CURRENT FILING DATE: 2001-07-29
PRIOR APPLICATION NUMBER: 60/221,632
PRIOR PILING DATE: 2000-07-28
PRIOR PPLICATION NUMBER: 60/249,602
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR FILING DATE: 2000-11-17
PRIOR FILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: 60/290,932
PRIOR FILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 96
SOFTWARE: PATENTIN UMBER: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo sapiens
US-09-917-340-52
                                                                                                                                                                                                                                                                              SEQ ID NO 72
LENGTH: 67
TYPE: PRT
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LENGTH: 67
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                            Query Match
Best Local Similarity
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APPLICANT: Murphy, Christopher J.
APPLICANT: McAnulty, Jonathan F.
APPLICANT: Reid, Ted W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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PRIOR FILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 96
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CURRENT FILING DATE: 2001-07-29
PRIOR APPLICATION NUMBER: 60/221,632
PRIOR FILING DATE: 2000-07-28
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR FILING DATE: 2000-11-17
PRIOR FILING DATE: 2000-11-17
                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: TPLANT-06468
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KCCRR 65
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McAnulty, Jonathan F.
Reid, Ted W.
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100.0%; Pred. No. 8.5e-59;
htive 0; Mismatches 0;
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FILE REFERENCE: IOWA.031US
CURRENT APPLICATION NUMBER: US/09/872,852
CURRENT FILING DATE: 2001-06-01
PRIOR APPLICATION NUMBER: 60/208,792
PRIOR FILING DATE: 2000-06-01
NUMBER OF SEQ ID NOS: 24
SOFTMARE: Patentin Ver. 2.1
SSEQ ID NO 2
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR FILING DATE: 1999-06-25
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR FILING DATE: 1997-09-10
NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version 4.0
LENGTH: 67
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Matches 65
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APPLICANT: MCCRAY JR, PAUL B.
APPLICANT: TACK, BRIAN
APPLICANT: JIA, HONG PENG
APPLICANT: JIA, HONG PENG
APPLICANT: SCHUTTE, BRIAN C.
APPLICANT: SCHUTTE, BRIAN C.
TITLE OF INVENTION: HUMAN BETA-DEPENSIN-3 (HBD-3), A HIGHTLE OF INVENTION: BETA-DEPENSIN ANTIMICROBIAL PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No.
                                                                                                                                                                                                                                                                                       FILE REFERENCE: 97.44D1
CURRENT APPLICATION NUMBER: US/10/091,166B
CURRENT APPLICATION STATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-08-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
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5. US20020115602A1
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Baindur, Nand
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; ORGANISM: Homo sapiens US-10-091-166B-10

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US-10-409-366-10
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CURRENT APPLICATION NUMBER: US/10/272,121
CURRENT FILING DATE: 2002-10-15
PRIOR APPLICATION NUMBER: US 09/636,399
PRIOR FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR APPLICATION NUMBER: US 09/344,097
PRIOR PRIOR APPLICATION NUMBER: US 09/369-76
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR APPLICATION NUMBER: US 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 1998-09-10
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Best Local S
Matches 65
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SEQ ID NO 10
LENGTH: 67
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Best Local Similarity
                                                                                                                                                                           Sequence 10, Application US/10409366 Publication No. US20030166912A1 GENERAL INFORMATION:
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PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: US 60/058,335
PRIOR FILING DATE: 1997-09-10
NUMBER OF SEO ID NOS: 72
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                                                    APPLICANT: Adler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Baindur, Nand
APPLICANT: Baindur, Nand
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
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CURRENT APPLICATION NUMBER: US/10/409,366
CURRENT FILING DATE: 2003-04-07
                                        FILE REFERENCE:
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No. US20030157638A1
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Sheppard, Paul O.
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Pred. No. 8.5e-59;
'; Mismatches 0;
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PRIOR FILLING DATE: 1997-10-09
PRIOR PELICATION NUMBER: 60/064,294
PRIOR PILLING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
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CURRENT APPLICATION NUMBER: US/10/409,532
CURRENT FILING DATE: 2003-04-07
PRIOR APPLICATION NUMBER: US/09/636,399A
PRIOR APPLICATION NUMBER: US/09/636,399A
PRIOR PILING DATE: 2000-08-10
PRIOR PPLICATION NUMBER: 00/058,335
PRIOR PILING DATE: 1997-10-09
PRIOR PILING DATE: 1997-10-09
PRIOR PILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
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SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 10
LENGTH: 67
TYPE: PRT
                                                                              Query Match
Best Local S
Matches 65
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SEQ ID NO 10
SERGTH: 67
TYPE: PRT
ORGANISM: Homo sapiens
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Best Local Similarity 100.0%; F
Matches 65; Conservative 0;
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Publication No. US20030166913A1
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PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS:
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TITLE OF INVENTION: NOVEL BETA-DEFENSINS
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                                                                                                    Similarity
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MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEBQIGKCSTRGR
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Baindur, Nand
                          MRIHYLLFALLFLFLVPVPGHOGIINTLQKYYCRVRGGRCAVLSCLPKEBQIGKCSTRGR 60
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Conservative 0
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Pred. No.
                                                                            Score 65; DB 14;
Pred. No. 8.5e-59;
; Mismatches 0;
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RESULT 14
US-09-872-852-3
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US-10-332-765-27
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                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Homo sapiens US-10-332-765-27
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US-09-872-852-4
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Publication No. US20040116652A1
GENERAL INFORMATION:
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Patent No. US20020115602A1
GENERAL INFORMATION:
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APPLICANT: TACK, BRIAN
APPLICANT: TACK, BRIAN
APPLICANT: JIA, HONG PENG
APPLICANT: SCHUTTE, BRIAN C.
TITLE OF INVENTION: HUMAN BEFFA-DEFENSIN-3 (HBD-3), A HIGHLY CATIONIC
TITLE OF INVENTION: BETA-DEFENSIN ANTIMICROBIAL PEPTIDE
FILE REFERENCE: IOWA:031US
CUKRENT APPLICATION NUMBER: US/09/872,852
CUKRENT FILING DATE: 2001-06-01
REIOR APPLICATION NUMBER: 60/208,792
PRIOR PILING DATE: 2000-06-01
NUMBER OF SEQ ID NOS: 24
SOFTWARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Forsemann, Wolf-Georg
APPLICANT: Conejo-Garcia, Jose-Ramon
APPLICANT: Conejo-Garcia, Jose-Ramon
APPLICANT: Adermann, Knut
TITLE OF INVENTION: Method for Producing and Using Novel Human Defensins as Biologica
TITLE OF INVENTION: Active Proteins for Treating Infections and other Illnesses
FILE REFERENCE: 022584us
CURRENT APPLICATION NUMBER: US/10/332,765
CURRENT FILING DATE: 2003-01-13
PRIOR APPLICATION NUMBER: DE10033505.5
PRIOR APPLICATION NUMBER: DE10033505.5
PRIOR FILING DATE: 2000-07-11
NUMBER OF SEQ ID NOS: 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Peptide
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                                           'Match 64.6%; Score 42; DB 16; Length 44;
Local Similarity 100.0%; Pred. No. 2.1e-35;
les 42; Conservative 0; Mismatches 0; Indels
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Similarity 100.0%; Pred. No. 2e-36;
43; Conservative 0; Mismatches 0; Indels
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FILE REFERENCE: IOWA:041US
CURRENT APPLICATION NUMBER: US/10/252,734
CURRENT FILING DATE: 2002-09-23
PRIOR APPLICATION NUMBER: 60/323,991
PRIOR FILING DATE: 2001-09-21
PRIOR FILING DATE: 2001-09-21
NUMBER OF SEQ ID NOS: 82
SOFTMARE: Patentin Ver. 2.1
SEQ ID NO 7
LENGTH: 35
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Patent No. US20020115602A1
GENERAL INFORMATION:
APPLICANT: MCCRAY JR, PAUL B.
APPLICANT: TACK, BRIAN
APPLICANT: UJA, HONG PENG
APPLICANT: SCHUTTE, BRIAN C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: Peptide US-09-872-852-3
Search completed: October 13, 2004, 15:04:09 Job time: 130 secs
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US-10-252-734-7
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TITLE OF INVENTION: HUMAN BETA-DEPENSIN-3 (HBD-3), A HIGHLY CATIONIC INTLE OF INVENTION: BETA-DEFENSIN ANTIMICROBIAL PEPTIDE FILE REFERENCE: IOWA-0.31US
CURRENT APPLICATION NUMBER: US/09/872,852
CURRENT FILING DATE: 2001-06-01
PRIOR APPLICATION NUMBER: 60/208,792
PRIOR APPLICATION NUMBER: 60/208,792
PRIOR FILING DATE: 2000-06-01
NUMBER OF SEQ ID NOS: 24
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: MCCKAY, JR., PAUL B.
APPLICANT: SCHUTTE, BRIAN C.
APPLICANT: JIA, HONG PENG
APPLICANT: JIA, HONG PENG
APPLICANT: CASAVANT, THOMAS L.
TITLE GEFERGER, TOWN CALLE AND MOUSE b-DEFENSINS, ANTIMICROBIAL PEPTIDES
                                                                                                                                                                                               Matches
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Best Local 9
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Publication No. US20030176652A1
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Best Local S
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ORGANISM: Homo sapiens
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                                                                                                                                                                                          Local Similarity 100.0%; es 35; Conservative
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100.0%; Pred. No. 2.5e-28;
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Perfect score:
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pre greater than or equal to the score of the result being printed,
I is derived by analysis of the total score distribution.
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/cgm2 6/ptodata/1/iaa/5B_COMB.pep:*
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/cgm2 6/ptodata/1/iaa/PCTUS_COMB.pep:*
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US-09-636-399A-40
US-09-636-399A-47
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US-09-917-340-72
US-09-636-399A-60
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US-09-636-399A-10
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ALIGNMENTS

RESULT 1 US-09-636-399A-2 FILE REFERENCE: 97-44C2 CURRENT APPLICATION NUMBER: US/09/636,399A CURRENT FILING DATE: 2000-08-10 PRIOR APPLICATION NUMBER: 60/058,335 PRIOR PILING DATE: 1997-11-05 PRIOR APPLICATION NUMBER: 60/64,294 PRIOR FILING DATE: 1997-11-05 PRIOR APPLICATION NUMBER: 09/150,786 PRIOR APPLICATION NUMBER: 09/150,786 PRIOR APPLICATION NUMBER: 09/1636,399 PRIOR FILING DATE: 1998-09-10 PRIOR FILING DATE: 2000-08-10 US-09-636-399A-2 Sequence 2, Application US/09636399A Patent No. 6576755 GENERAL INFORMATION: SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 2 LENGTH: 65 Matches Query Match Best Local 9 APPLICANT: Adler, David A. APPLICANT: Holloway, James L. APPLICANT: Baindur, Nand APPLICANT: Beigel-Orme, Stephanie APPLICANT: Sheppard, Paul O. TITLE OF INVENTION: NOVEL BETA-DEFENSINS TYPE: PRT ORGANISM: Homo 13 19 65; 1 MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR Similarity MRIHYLLFALLFLVPVÞGHGGIINTLQKYYCRVRGGRCAVLSCLÞKEEQIGKCSTRGR KCCRR KCCRR 100.0%; ilarity 100.0%; Conservative (sapiens 65 65 0 Score 65; DB 4; 1 Pred. No. 2.9e-63; Mismatches 0; Length 65; Indels

RESULT 2 US-09-636-399A-10

Sequence 10, Application US/09636399A Patent No. 6576755 GENERAL INFORMATION: APPLICANT: Adler, David A. APPLICANT: Holloway, James L.

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Gaps

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APPLICANT: MUZDHY, Christopher J.
APPLICANT: MAZDHY, Christopher J.
APPLICANT: MAZDHY, Christopher J.
APPLICANT: Mednilty, Jonathan F.
APPLICANT: Reid, Ted W.
TITLE OF INVENTION: Transplant Media
TITLE OF INVENTION: Transplant Media
TITLE OF INVENTION NUMBER: US/09/917,340
CURRENT APPLICATION NUMBER: US/09/917,340
CURRENT FILING DATE: 2001-07-29
PRIOR APPLICATION NUMBER: 60/221,632
PRIOR FILING DATE: 2000-07-28
PRIOR FILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR APPLICATION NUMBER: 60/290,932
PRIOR TILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 96
SEQ ID NO 52
LENGTH: 67
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CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/054,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/536,399
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
                                                                                                                                                                                                                                                                   US-09-917-340-52
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                                                                                                                                                                            Matches
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Sequence 52, Apv1-
No. 6696238
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Best Local Similarity 100.0%;
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Best Local
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PPLICANT: Sheppard, Paul O.
ITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENGTH: 67
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61 KCCRR 65
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                                         KCCRR 65
                                                                                    MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
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FILE OF INVESTION: TRANSPLANT Media
FILE REFERENCE: TPLANT-06468
CURRENT APPLICATION UNMER: US/09/917,340
CURRENT FILING DATE: 2001-07-29
PRIOR APPLICATION NUMBER: 60/21,632
PRIOR FILING DATE: 2000-07-28
PRIOR PRILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR FILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: 60/290,932
PRIOR FILING DATE: 2001-05-15
PRIOR FILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 96
SOPTWARE: PATENTIN Ver. 2.0
SEQ ID NO 72
                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR FILING DATE: 1997-10-09
PRIOR RELING DATE: 1997-10-05
PRIOR APPLICATION NUMBER: 60/64,294
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
SOPTWARE: FRASESEQ for Windows Version 3.0
SEQ ID NO 60
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US-09-636-399A-60
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APPLICANT: Murphy, Cl
APPLICANT: McAnulty;
APPLICANT: Reid, Tec
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Best Local Similarity
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APPLICANT: Holloway, James L.
APPLICANT: Beindour, Nand
APPLICANT: Beigel-Orme, Stephanie
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44C2
OTHER INFORMATION: Defensin polypeptide NAME/KEY: VARIANT LOCATION: (33)...(33)
                                                                    ORGANISM: Artificial Sequence FEATURE:
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                                                                                                                                        ENGTH:
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McAnulty, Jonathan F.
Reid, Ted W.
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CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 1998-09-10
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
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Best Local
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 58
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APPLICANT:
APPLICANT:
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                                           APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
                                                                                                                                          APPLICANT: Holloway, James L. APPLICANT: Baindur, Nand
               CURRENT FILING DATE: 2000-08-10 PRIOR APPLICATION NUMBER: 60/058,335 PRIOR FILING DATE: 1997-10-09
                                                                                                                                                                          APPLICANT: Adler, David A
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OTHER INFORMATION: Defensin polypeptide
NAME/KEY: VARIANT
LOCATION: (34)...(34)
OTHER INFORMATION: Xaa is Ile, Leu, Val
                                                                                                                            APPLICANT:
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TYPE: PRT
ORGANISM: Artificial Sequence
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APPLICATION NUMBER: 60/064,294
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20; Conserv
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Baindur, Nand
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Beigel-Orme, su
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Pred. No.
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                                                                                                                            OTHER INFORMATION: Defensin polypeptide NAME/KEY: VARIANT; LOCATION: (35)...(35)
OTHER INFORMATION: Xaa is Ile, Leu, Val US-09-636-399A-56
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US-09-636-399A-56
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LENGTH: 37
TYPE: PRT
                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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Patent No.
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Best Local S
                                                                  Query Match
                                                              Matches
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PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR FILING DATE: 2000-08-10
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CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
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PRIOR FILING DATE: 1997-10-09
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NAME/KEY: VARIANT
LOCATION: (33)...(33)
OTHER INFORMATION: Xaa is Ile, Leu, Met, Phe, or Val
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                                                                                                                                                                                                                        TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                               LENGTH: 38
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TLE OF INVENTION: NOVEL BETA-DEFENSINS
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                      31 YYCRVRGGRCAVLSCLPKEE
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20; Conserv
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   YYCRVRGGRCAVLSCLPKEE
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Baindur, Nand
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                                                                Conservative
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                                                                              30.8%;
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                                                                              Score 20;
Pred. No.
   22
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                                                                                                   Length 38
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RESULT 9 US-09-636-399A-57

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PRIOR FILING DATE: 1997-10-09
PRIOR PEPUICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/636,399
PRIOR APPLICATION NUMBER: 09/636,399
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                                                                                              SOFTWARE: Fa
SEQ ID NO 54
LENGTH: 39
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                                                                                                                                                                                                                               FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
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CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
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SOFTWARE: FastSEQ for
EQ ID NO 57
                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
FILE REFERENCE: 97-44C2
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PRIOR FILING DATE: 2000-08-10
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OTHER INFORMATION: Defensin polypeptide NAME/KEY: VARIANT
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                                                        ORGANISM: Artificial Sequence
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The of invention: NOVEL BETA-DEFENSINS
                                        FEATURE:
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20; Conserv
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Baindur, Nand
Beigel-Orme, S
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Baindur, Nand
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100.0%; F:
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Pred. No. 1.4e-
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Patent No. 6576755;
GENERAL INFORMATION:
APPLICANT: Addler, David A.
APPLICANT: Holloway, James L.
APPLICANT: Beigel-Orman

APPLICANT: Beigel-Orme, Stephanie APPLICANT: Sheppard, Paul O. TITLE OF INVENTION: NOVEL BETA-DEFENSINS FILE REFERENCE: 97-44C2 CURRENT APPLICATION NUMBER: US/09/636,399A CURRENT APPLICATION NUMBER: 60/058,335 PRIOR APPLICATION NUMBER: 60/058,335

US-09-636-399A-52

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NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 55
LENGTH: 39
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Best Local Similarity
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Patent No. 65767
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                                                                                           Query Match
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CURRENT EILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR FILING DATE: 1997-11-05
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APPLICANT: Adler, David A.
APPLICANT: Holloway, Jame
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PRIOR APPLICATION NUMBER: 09/636,399
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OTHER INFORMATION: Defensin polypeptide
NAME/KEY: VARIANT
LOCATION: (35)...(35)
OTHER INFORMATION: Xaa is Leu, Val, Ile
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                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Artificial Sequence
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PPLICANI: Sheppard, Paul O.
ITLE OF INVENTION: NOVEL BETA-DEFENSINS
ILE REFERENCE: 97-44C2
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31 YYCRVRGGRCAVLSCLPKEE 50
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Baindur, Nand
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SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 52
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Best Local
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Best Local
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PRIOR FILING DATE: 1997-10-09
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PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
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CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
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PRIOR APPLICATION NUMBER: 09/636,399
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NAME/KEY: VARIANT
LOCATION: (36)...(36)
OTHER INFORMATION: Xaa is Ile, Leu, Phe, Val, or Met
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TLE OF INVENTION: NOVEL BETA-DEFENSINS
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YYCRVRGGRCAVLSCLPKEE 23
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Baindur, Nand
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100.0%; Pred. No.
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Pred. No. 1.4e-1
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RESULT 14

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CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR FILING DATE: 1997-11-05
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
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                                                                                                                                                                                                         FILE REFERENCE: 97-44C2
CURRENT APPLICATION NUMBER: US/09/636,399A
CURRENT FILING DATE: 2000-08-10
PRIOR APPLICATION NUMBER: 60/058,335
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: 60/064,294
PRIOR APPLICATION NUMBER: 09/150,786
PRIOR FILING DATE: 1998-09-10
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SOFTWARE: FastSEQ for
SEQ ID NO 50
LENGTH: 41
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                                                                                                      SOFTWARE: FastSEQ for Windows Version SEQ ID NO 51
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APPLICANT: Holloway, Jame
APPLICANT: Baindur, Nand
APPLICANT: Beigel-Orme, S
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                                                                                                                                                    PRIOR APPLICATION NUMBER: 09/0
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 72
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: NOVEL BETA-DEFENSINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: VARIANT
LOCATION: (38)...(38)
OTHER INFORMATION: Xaa is Ile, Leu,
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                                                              TYPE: PRT
                                       ORGANISM: Artificial Sequence
THER INFORMATION: Defensin polypeptide
                                                                                 ENGTH:
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Local Similarity 100.0%;
hes 20; Conservative
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6576
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T: Sheppard, Paul O.
INVENTION: NOVEL BETA-DEFENSINS
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Baindur, Nand
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Gaps

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Page 6

; NAME/KEY: VARIANT; LOCATION: (37)...(37)
COTHER INFORMATION: Xaa is Ile, Leu, Phe, Val, or Met US-09-636-399A-51 Query Match 30.8%; Score 20; DB 4; Length 41; Best Local Similarity 100.0%; Pred. No. 1.5e-14; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0,

Search completed: October 13, 2004, 15:01:54 $\,$ Job time : 38 $\,$ secs $\,$

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Copyright (c) 1993 - 2004 Compugen Ltd.
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ALIGNMENTS

RESULT 1. AAY07243 ID AAY07243 AC AAY0 10-SEP-1997; 10-SEP-1997; 05-NOV-1997; 05-NOV-1997; Human; zampl; beta-defensin; bacterium; fungus; virus; inflammati tissue damage; immune response; AIDS; chemotherapy; melanocortin; antibody; ion flux; cytocidal activity; mammalian cell. AAY07243; AAY07243 standard; 06-JUL-1999 18-MAR-1999. Homo sapiens Beta-defensin 10-SEP-1998; WO9913080-A1 (ZYMO) ZYMOGENETICS INC. (first entry) family member 97US-0058335P. 97US-00926529. 97US-0064294P. 97US-00964687. 98WO-US019222 protein; 65 zamp1. 8 inflammation;

This sequence represents the human zampl protein which is a member of the beta-defensin protein family. Zampl protein is useful as a pharmaceutical composition, useful for treatment of e.g. bacterial, fungal and viral infections. They are also useful pro-inflammators, for treating chronic tissue damage, and for stimulating the immune response, for treatment of AIDS or chemotherapy patients. Zampl polypeptides and antibodies are useful for studying activity of the melanocortin family, studying ion flux in cell culture, and studying cytocidal activity against mammalian

WPI; 1999-215064/18. N-PSDB; AAX29985.

Adler D,

Holloway JL,

Baindur

z

Beigel

New zampl polypeptide and polynucleotide, human beta-defensins - was diagnostic reagents and for treatment of microbial infections,

Claim 1; Page 70; 79pp; English.

AIDS

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RESULT 2
AAY07244
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Matches 65
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                    This sequence represents the human zampl protein which is a member of the beta-defensin protein family. Zampl protein is useful as a pharmaceutical composition, useful for treatment of e.g. bacterial, fungal and viral infections. They are also useful pro-inflammators, for treating chronic tissue damage, and for stimulating the immune response, for treatment of AIDS or chemotherapy patients. Zampl polypeptides and antibodies are useful for studying activity of the melanocortin family, studying ion flux in cell culture, and studying cytocidal activity against mammalian cells in culture, by incubation with the cells. Zampl polypeptides are especially useful for studying epithelial defensin induction in cell culture when exposed to pathogenic stimuli
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tissue damage;
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                                                                                                                                                                                                                                                                                             New zamp1 polypeptide and polynucleotide, as diagnostic reagents and for treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-NOV-1997;
05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-SEP-1997;
10-SEP-1997;
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                                                                                                                                                                                                                                          Claim 1; Page 73; 79pp; English.
                                                                                                                                                                                                                                                                                                                                                    N-PSDB;
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                                                                                                                                                                                                                                                                                                                                                                                                      Adler
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     beta-defensin; bacterium; fungus; virus; inflammation; immune response; AIDS; chemotherapy; melanocortin; flux; cytocidal activity; mammalian cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family member
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97US-00926529.
97US-0064294P.
97US-00964687.
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Pred. No. 1.8
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Score 65; DB Pred. No. 1.9 0; Mismatches

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                              This invention describes the novel active, mature human proteins (I) SA 2 and SAP-3 which have antibiotic, antibacterial, antifungal and antiviry. (I), and their precursors, are useful for treating preventing microbial infections (caused by bacteria, fungi or viruses), particularly where they (or human cells expressing them) are included i wound dressings, and to produce specific antibodies (Ab) or their fragments. Ab are used as diagnostic reagents, e.g. to detect a deficiency of (I) or the presence of a (I) variant. This sequence represents the human SAP-3 protein described in the method of the
                                                                                                                                                                                                                                                                                    01-FEB-1999;
08-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                        SAP-2; SAP-3; human; antibiotic; antibacterial;
treatment; microbial infection; wound dressing;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
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                                                                                                                                                                         New human antibiotic peptides, particularly when incorporated
                                                                                                                                                                                                                      WPI;
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                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
 Sequence
                                                                                                                                          Claim 4; Page 39; 41pp; German.
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99DE-01049436.
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Pred. No. 1.9
0; Mismatches
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                                                                                                                                                                          useful for treating microbial infections, in wound dressings, also related nucleic
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                                                                                                                                                                                                                                                                                                                                                                                                          antifungal; antiviral;
diagnostic reagent.
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RESULT 4
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RESULT 5
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Matches 65
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                           Transplant media associated defensin peptide
                                                                                05-JUN-2002
                                                                                                                                                                                    AAU91016 standard;
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Pred. No. 1.9
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RESULT 6
AAU91036
ID AAU9

AAU91036 standard;

peptide;

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AAU91036;

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05-JUN-2002 Transplant r

media associated defensin peptide

#37.

(first entry)

Transplant; antimicrobial peptide; pore forming agent; cardioplegia; cell surface receptor binding compound; kidney transplant; cardioplegia;

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                                                                                                                                                                                                                         The invention describes new transplant compositions comprising antimicrobial polypeptides or pore forming agents and/or cell surface or receptor binding compounds. The media is capable of extending the presentation period past 72 hours and can provide organs with increased functionality upon transplant. animals receiving kidneys stored in the creation of the present invention for either three or four days had serum creatinine levels of less than half of those observed in control animals receiving kidneys stored in UW solution (defined in the specification) control animals of the control preferable prognosis for the transplant patient. The media of the invention are useful for decreasing the incidence and/or severity of delayed graft function in patients receiving transplanted kidneys stored condition the media. The media may also be used in procedures such as cardioplegia. It is contemplated that transplant of healthier corgans leads to a decrease in chronic rejection. This sequence represents a nathinicrobial defensin peptide studied in the development of the
                                                                                                                      Query Match
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Matches 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Transplant; antimicrobial peptide; pore cell surface receptor binding compound; organ transplant; transplant rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Media comprising antimicrobial polypeptides or pore forming agents and/or cell surface receptor binding compounds useful for the storage and preservation of organs prior to transplant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-JUL-2000; 2000US-0221632P
17-NOV-2000; 2000US-0249602P
15-MAY-2001; 2001US-0290932P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-FEB-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organ transplant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-JUL-2001; 2001WO-US023785.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-268995/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Murphy
                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 8; Page 28; 78pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MURP/) MURPHY C J.
                                                                                                                                                                                                               transplant media
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 61
                             19
                                                                                                                         65;
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                                                                                                                                        Similarity
                                                          KCCRR 65
                                                                                                                                                                                  67 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Reid TW,
                                                                                                                        Conservative
65
                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mcanulty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                                                                         0
                                                                                                                         Score 65; DB 5; 1
Pred. No. 1.9e-60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             forming agent; kidney transplant; cardioplegia; defensin.
                                                                                                                                                      Length 67
                                                                                                                           Indels
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                                                                                                                            Gaps
                                                                  60
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RESULT 7
AAO1.7768
ID AAO1.7768
AC AAO1
XX
AC AAO1
XX
DT 30-1
DT 30-1
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DX
Huma
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Hum
KW ream
KW ream
KW ream
KW ant:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention describes new transplant compositions comprising cantimicrobial polypeptides or pore forming agents and/or cell surface creceptor binding compounds. The media is capable of extending the greecration period past 72 hours and can provide organs with increased functionality upon transplant animals receiving kidneys stored in the media of the present invention for either three or four days had serum creatinine levels of less than half of those observed in control animals receiving kidneys stored in UW solution (defined in the specification) calone. Lower serum creatinine levels are indicative of healthher kidneys and a more preferable prognosis for the transplant patient. The media of the invention are useful for decreasing the incidence and/or severity of celayed graft function in patients receiving transplanted kidneys stored cand/or treated in the media. The media may also be used in procedures such as cardioplegia. It is contemplated that transplant of healthher corgans leads to a decrease in chronic rejection. This sequence represents an antimicrobial defensin peptide studied in the development of the
                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 65
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17-NOV-2000;
15-MAY-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              transplant media
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              preservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Murphy CJ,
               Human; beta-defensin-3; hBD-3; bacterial infection; gene therapy; respiratory system; cystic fibrosis; inflammation; urogenital tracantibacterial; fungicide; cytostatic; antiinflammatory; antiulcer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MURP/) MURPHY C J
 gastrointestinal tract; septicaemia;
                                                                                                                            30-AUG-2002
                                                                                                                                                               AA017768;
                                                                                                                                                                                                AAO17768 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 surtace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          comprising antimicrobial polypeptides or surface receptor binding compounds useful rvation of organs prior to transplant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              transplant;
                                                                                                                                                                                                                                                                                                                           9
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                                                                                          beta-defensin-3
                                                                                                                                                                                                                                                                                                                                                                                                                                      65;
                                                                                                                                                                                                                                                                                                                                                                                              1 MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
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2000US-0249602P.
2001US-0290932P.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                          65
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                                                                                                                                                                                                protein;
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                                                                                          derivative
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 65; DB
Pred. No. 1.9
); Mismatches
                                                                                                                                                                                                    B
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 apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.9e-60;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 67;
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to human beta-defensin-3 (hBD-3) and its derivatives. The peptide, its coding sequence and vectors containing the coding sequence are useful in (gene) therapy and diagnosis, especially for preventing or treating a wide range of microbial infections (particularly Burkholderia cepacia and Pseudomonas aeruginosa in the respiratory tract, especially in cases of cystic fibrosis, and Helicobacter pylori, also inflammatory diseases of the gastrointestinal and urogenital tracts, sepsis and yeast infections), and for inducing apoptosis for treating malignant melanoma and tumours. The present sequence is a derivative of human BD-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New human beta
infection and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-435959/46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Forssmann W,
Maegert H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-NOV-2000;
30-MAR-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 67 AA;
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                       25-SEP-2003; 2003WO-US030907
                                                08-APR-2004
                                                                      WO2004028479-A2
                                                                                                                                           Antipsoriatic protein sequence #1157
                                                                                                                                                                     01-JUL-2004
                                                                                                                                                                                            ADN05995;
                                                                                                                                                                                                                     ADN05995 standard; protein;
25-SEP-2002; 2002US-0414006P
                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                65;
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                                                                                                                                                                                                                                                                                                                                                    1 MRIHYLLFALLFLFLVPVPGHGGIINTLQXYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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hilarity 100.
Conservative
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2001DE-01016220.
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                                                                                                                     gene
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                                                                                                                                                                                                                      67
                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                      psoriasis; diagnosis
                                                                                                                                                                                                                                                                                                                                                                              Score 65; DB
Pred. No. 1.9
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for treating of nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                             DB 5; 1
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                                                                                                                                                                                                                                                                                                                                                                                                       Length 67;
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RESULT 9
ADQ08000
ID ADQ0
XX ADQ0
XX ADQ0
XX ANTI
XX HUMA
XX HBD-
XX HOMC
XX IN-PI
DR WFI
DR W-PI
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DR W-PI
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 200
N-PSDB;
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Wu TD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to novel polynucleotide and polypeptides for treating psoriasis or a sequence having at least 80% identity to the above sequences. The nucleic acid is useful for preparing a composition for diagnosing or treating psoriasis in a mammal. This sequence corresponds to one of the polypeptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New PRO nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                              ADQ08006 standard; protein;
                                                                                                                                                                                                                              01-JUL-2004
                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                        Anti-HIV; Vaccine;
                                                                                                                                                                                                                                                                                                                             Human beta-defensin-3, HBD-3,
                                                                                                                                                                                                                                                                                                                                                  23-SEP-2004
                                                                                                                                                                                   13-DEC-2002; 2002US-0433099P
                                                                                                                                                                                                        15-DEC-2003;
                                                                                                                                                                                                                                                    WO2004054603-A2
                                                                          Inhibiting
defensin-2
                                          Claim
                                                                                                                                        Weinberg
                                                                                                                                                               (UYCA-)
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DB; ADN05994.
                                                                                                        2004-488004/46.
DB; ADQ08007; ADQ08008, ADQ08009.
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                                                                                                                                                                                                                                                                                               antiviral.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KCCRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR
                                          Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clark H,
                                                                          HIV infection in a subject or human Beta defensin-3 ag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA,
                                                                                                                                                               CASE WESTERN RESERVE
                                                                                                                                                                                                         2003WO-US040233
                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                          10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   c acid or polypeptide, useful a composition for diagnosing or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
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                                          63pp;
                                                                                                                                                                                                                                                                                                         HIV infection;
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                                           English.
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Pred. No.
                                                                                                                                                                                                                                                                                                                              SEQ
                                                                                                                                                                                                                                                                                                                                                                                               Å
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                                                                                                                                                                                                                                                                                                         Beta Defensin; BD; human; HBD; HBD-2;
                                                                                                                                                                                                                                                                                                                               IJ
                                                                           ot comprises administering human agent or Beta Defensin-inducing
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r treating psoriasis
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                                                                                         Beta
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The present invention relates to a method for inhibiting HIV infection a subject. The method comprises administering Beta Defensin (BD) agent Beta Defensin-inducing agent e.g. a human BD (HBD) agent such as HBD-2

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Query Match

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 200
N-PSDB;
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                                                                        This invention describes the novel active, mature human proteins (I) SA 2 and SAP-3 which have antibiotic, antibacterial, antifungal and antiviral activity. (I), and their precursors, are useful for treating preventing microbial infections (caused by bacteria, fungi or viruses), particularly where they (or human cells expressing them) are included in wound dressing, and to produce specific antibodies (Ab) or their fragments. Ab are used as diagnostic reagents, e.g. to detect a deficiency of (I) or the presence of a (I) variant. This sequence represents the mature human SAP-3 protein described in the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-JAN-2001
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08-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      treatment; microbial
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human SAP-3
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                                                      invention
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DB; AAA71753.
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99DE-01049436.
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infection; wound dressing; diagnostic;
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wound dressings, also related
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RESULT 12
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to the isolation of a novel antimicrobial peptide, human beta-defensin-3 (HBD-3). Also described is a method of inhibiting growth of a microbe by introducing into a host or environment the antimicrobial peptide of the invention. The peptide is useful for treating or preventing microbial growth or infections, e.g. pulmonary infections when administered by inhalation. The peptide can be applied or a work surface or a surgical instrument for the prevention and/or suppression of microbial growth. The present sequence represents HBD-3 mature protein sequence #2
Human beta-defensin-3 derivative #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New human beta-defensin 3 peptides and nucleic acids encoding peptides, useful for treating or preventing microbial growth or infection, or in
                                                               30-AUG-2002
                                                                                                                     AA017767;
                                                                                                                                                                        AA017767 standard; peptide; 45 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 45 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 29; Page 98; 110pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antimicrobial peptide; human beta-defensin-3; HBD-3;
ial growth; microbial infection; pulmonary infection.
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RESULT 13 AAU09708

AAU09708 standard; protein; 41

AAU09708;

26-MAR-2002

(first entry)

밁 5

Human; antimicrobial peptide; human beta-defensin-3; HBD-3; microbial growth; microbial infection; pulmonary infection. Human beta-defensin-3 (HBD-3) mature protein sequence #1.

WO200192309-A2 Homo sapiens

06-DEC-2001

01-JUN-2000; 2000US-0208792P

01-JUN-2001; 2001WO-US018057

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Best Loc
Matches
                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                        The present invention relates to human beta-defensin-3 (hBD-3) and its derivatives. The peptide, its coding sequence and vectors containing the coding sequence are useful in (gene) therapy and diagnosis, especially for preventing or treating a wide range of microbial infections (particularly Burkholderia cepacia and Pseudomonas aeruginosa in the respiratory tract, especially in cases of cystic fibrosis, and Helicobacter pylori, also inflammatory diseases of the gastrointestinal and urogenital tracts, sepsis and yeast infections), and for inducing apoptosis for treating malignant melanoma and tumours. The present sequence is a derivative of human BD-3
                                                                                                                                                                                                             Sequence 45 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; beta-defensin-3; hBD-3; bacterial infection; gene therapy; respiratory system; cystic fibrosis; inflammation; urogenital tract; antibacterial; fungicide; cytostatic; antiinflammatory; antiulcer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New human beta-defensin 3, useful for treating or infection and tumors, also related nucleic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
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30-MAR-2001; 2001DE-01016220
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                                                                                                                                   Local
                                        23 GIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGRKCCRR 65
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                                                                                                    43;
                                                                                                                                   Similarity
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                                                                                                    0: Mismatches
                                                                                                                                Score 43;
Pred. No.
                                                                                                                                1.9e-37;
                                                                                                                                                             DB 5;
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                                                                                                                                                       Length 45;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to the isolation of a novel antimicrobial peptide, human beta-defensin-3 (HBD-3). Also described is a method of inhibiting growth of a microbe by introducing into a host or environment the antimicrobial peptide of the invention. The peptide is useful for treating or preventing microbial growth or infections, e.g. pulmonary infections when administered by inhalation. The peptide can be applied on a work surface or a surgical instrument for the prevention and/or suppression of microbial growth. The present sequence represents HBD-3 mature protein sequence #1
                                                                                                                                                                                                                                                                                       Human; beta-defensin-3; hBD-3; bacterial infection; gene therapy; respiratory system; cystic fibrosis; inflammation, urogenital tracantibacterial; fungicide; cytostatic; antiinflammatory; antiulcer; gastrointestinal tract; septicaemia; apoptosis induction; cancer.
                      Claim 2;
                                           New human beta-defensin 3, infection and tumors, also
                                                                                                   Maegert
                                                                                                                                                                       14-NOV-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New human beta-defensin 3 peptides and nucleic acids encoding peptides, useful for treating or preventing microbial growth or infection, or in
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                                                                                                                                       (IPFP-)
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39; Conserv
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2001DE-01016220.
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                   23; 36pp; German
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100.0%; Pre
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                                           for treating or distributed in the nucleic acid.
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2.8e-33;
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present invention relates to human

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(hBD-3)

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Sequence 35

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                                                              ABR43496 to ABR43577 represent beta-defensin antimicrobial peptides (1).

(I) have antibacterial activity and can be used in vaccines, and in gene therapy. (1) can be used for preventing microbial growth, for treating infections (e.g. pulmonary infections), for reducing resistance to antimicrobials and antibiotics, and for inhibiting multidrug resistant bacteria. The antimicrobial peptides may be included in food preparations, pharmaceutical preparations, medicinal and pharmaceutical products, cosmetic products, hygienic products, cleaning agents, as well as to any material to which the peptides could be sprayed on or adhered to where inhibition of microbial growth on such material is desired. The antimicrobial apptides and nucleic acids encoding them may be used in gene therapy. ABR43578 to ABR43610 represent the present in the peptides of the present in the pres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         derivatives. The peptide, its coding sequence and vectors containing the coding sequence are useful in (gene) therapy and diagnosis, especially for preventing or treating a wide range of microbial infections (particularly Burkholderia cepacia and Pseudomonas aeruginosa in the respiratory tract, especially in cases of cystic fibrosis, and Helicobacter pylori, also inflammatory diseases of the gastrointestinal and urogenital tracts, sepsis and yeast infections), and for inducing apoptosis for treating malignant melanoma and tumours. The present sequence is a derivative of human BD-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                      New antimicrobial peptides, beta-defensin, useful for preventing microbial growth, for treating pulmonary infections, for reducing resistance to antimicrobials and antibiotics, and for inhibiting multidrug resistant bacteria.
                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 78; 125pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mccray
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                                                  invention
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3.1e-32;
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